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This War

Information is gradually filtering through which shows that the care of the wounded in this war is quite different from that of the last one. Medical officers who served during the last war show great surprise when told of the requirements of this one. The differences that we shall point out are mainly those gathered from the conditions as found in France during the German invasion.

During the present war practically every wounded man suffered much more severely from shock than did the wounded of the previous war.

In the present war the incidence of fractures was much higher than in the previous war. The former methods of treatment of fractures, such as the Balkan frame, etc., were found impractical. The method in most common use today is the closed plaster cast. Surgeons returning, while they admit that this method has definite disadvantages, found it the method of choice either with or without the sulfonamide compounds. The great disadvantage was the extremely bad odor which this method of treatment produced. The only way that was found to combat this odor was the placing of small bags of lactose over the wounds before closing them.

During the last war, while multiple shrapnel wounds were not uncommon, they were not nearly as plentiful as the multiple wounds found in this war. It was reported that it was not infrequent to find the wounded with twenty or more pieces of explosive bomb or shrapnel, in this war. Burns were much more frequent and infinitely more deep-seated than were the burns of the previous war. These are caused mainly by thermite. We are told that the present day burns seared deeply into the flesh, and necrosis was common.

The transportation in France of the wounded was a much more serious problem than in the previous war for, with the poor air defense that the French showed, every moving object on the ground was bombed; and night transportation was also practically impossible on account of the enforced blackout. It was found impracticable to group wounded men in any number as the hospitals, even though designated, were constantly under heavy bombardment from the air. The number of recoveries of the wounded was a small fraction in the present day war compared to those whose lives were saved in the previous war, on account of the difficulties of transportation, hospitalization, severity of injury, and generally changed conditions. Only well protected bombproof underground shelters would have been practical and here the question of ventilation was a problem.

From the foregoing it will be seen that it is necessary for the medical profession to devise new methods for the care of the wounded in this war, and we cannot rely too much on the experience gained in previous wars. This war is different, not alone in its purposes but also in its casualties. It is a bigger battle and a more cruel one; and the casualties among the civilian population are usually as great as those of the military. The medical profession of this country must gird itself to combat the new bestialities which have been devised.

Rise in Vice

At the annual meeting of the United States Conference of Mayors, held recently in Washington, D. C., Dr. Thomas Parran, Surgeon General of the United States Public Health Service, called attention to the increase of venereal disease and organized vice in this country. Fifty-seven thousand men out of every million called up under selective service for physical examinations were rejected because of venereal disease, he said, and he added that, according to latest reports, not more than half of these men have been brought under treatment in their home communities.

Commercialized prostitution, Dr. Parran declared, had become one of our most expanded war industries. According to data collected in many widely separated parts of the country, it seemed a reasonable estimate that commercial prostitution had become responsible for at least seventy-five percent of all new venereal disease infections. "Nothing short of a total program against the venereal diseases will get results in this total war", he said. He pointed out the program included the active repression of prostitution and the graft on which it thrives, the enforcement of quarantine laws, the provision of good treatment facilities to mop up existing disease, active case-finding services to trace down the origin of new infection as accurately as a case of typhoid is traced to its source, and the fact

impressed upon every citizen that a venereal infection is dangerous to his own health and subtracts from the war effort.

The report of Dr. Parran is somewhat more pessimistic than that of the Metropolitan Life Insurance Company on the health of the Army, published last September, which stated that the admission rate in the Army for venereal diseases had been less than 40 per 1,000 (on an annual basis) during most of the period since the induction of selectees. This contrasted markedly with the experience during the first world war, when the average rate for troops in the United States was well over 100 per 1,000, partly as a result of the failure to exclude infected men from the draft. The rates, however, as to September last, were somewhat higher than in the regular army in recent years. The comparatively low rate from venereal diseases as compared with the first world war period, showed the feasibility of their control. At the time of that report it was hoped that even lower rates might be achieved by close cooperation of military and public health officials and voluntary agencies, combined with the more adequate provision of recreational facilities in the areas where the new army camps are located. Dr. Parran's new statements are likely to cause some doubt of those more optimistic views.

Coronary Disease and the Doctor

Is or is not coronary disease the doctor's disease? Statistical figures published by the Mayo Clinic some time ago might seem to prove that it is. Among the patients at the clinic the incidence of coronary disease was as follows: 2.5 percent for farmers and laborers; 4.6 percent for clergymen and lawyers; 5.3 percent for bankers, and 10.7 percent for physicians. Still further proof seems to be furnished by new figures compiled by O. P. J. Falk, of the department of internal medicine of the St. Louis University School of Medicine, and published in the *Illinois Medical Journal*. According to his conclusions, coronary disease kills doctors twice as often as laymen. While coronary deaths have increased 114 percent among all men over a seven-year period, the increase among physicians was 240 percent. Comparison of causes of death among physicians in 1940 and 1930 shows that the average age at death was 63.7 in 1930 and 66.3 in 1940. The percentage of cardiac disease as a cause of death was thirty-five in 1930 and forty-one in 1940. The percentage of coronary deaths among all cardiac deaths of physicians was ten in 1930, and forty-six in 1940. The fashion in diagnostic trend may help to mold these statistics, but it does not adequately explain the trend toward coronary deaths of the past five years.

However, a consideration of the figures of Arthur M. Master, of the Cardiac Clinic, Mount Sinai Hospital, New York, does not disclose such differences according to manual or mental work. In tabulating the occupations of the patients with coronary occlusion, he found that all types were represented and that the percentages paralleled the occupational distribution of the general population in New York City. Thus occupation, whether strenuous or not, whether manual or mental, did not play a rôle in the frequency of the disease.

There is no doubt that the underlying causes of the increased incidence of coronary disease have not been determined. In any case, however, there is no harm in following the advice given by Falk to his colleagues who are suspected of having coronary disease. Attention to adequate calcium and vitamin intake is important. The problem of overweight can be largely controlled by a minimal fat and a moderate carbohydrate diet. It is difficult to overemphasize the value of stilling the tempests of a particularly stormy day in the life of a doctor possessed of a highly nervous temperament. Restoring equanimity is important, even by the use of ten or fifteen grains of bromide or a quarter grain of phenobarbital. Moderation should be used in smoking; the greatest incidence of coronary disease has been observed among the excessive smokers.

Rest, relaxation and exercise are also necessary for the doctor. In middle or advanced age, according to Falk, he should select his patients, and avoid, if possible, those who are difficult, introspective and uncooperative. He can minimize fatigue by the elimination of nonessential work. The telephone is a fine energy saver, and routine calls in the evening might be dispensed with. While it is doubtful whether the irregularity of meals is harmful, eating hurriedly and working immediately afterwards is admittedly harmful. The evening office hour, following the principal meal of the day, possibly presents a tangible hazard.

Prophylaxis of Venereal Disease

It is forty years or so since the experimentation of Metchnikoff led to the proposal of applying calomel ointment after suspicious intercourse for the prevention or early treatment or whatever name is chosen to represent the prevention of infection of the individual with syphilis. A solution of a silver salt has been advocated for the prevention of gonorrhea. Credé advocated the enlightened care of the eyes of the newborn to prevent gonorrheal inflammation.

Chemotherapy has come a long way since these revolutionary moves were suggested and adopted by military forces and certain civilians. So has the art and science of latex. Physical barriers for the male are available. Unfortunately, a few communities with the guild spirit of the middle ages restrict the sale of these physical barriers to infection with syphilis, gonorrhea and the other socalled or miscalled venereal diseases. New

York State, for example, has restrictive legislation. At the same time, the State Health Department quotes the success of the antivenereal activities of the Scandinavian countries. Those communities, when they were free a few short years ago, advertised physical barriers to infection for the male in the public square. Condoms were sold from automatic vending machines. The state of Pennsylvania is probably the only forward state with realism. It is reported that any person can enter a pharmacy there and procure free of charge a packet with physical and chemical protection against venereal disease infection through sexual exposure.

But the modes of prevention remain with the prechemotherapeutic early 1900. Nothing has been done apparently with modern drugs and modern modes of application. No records are available of a regiment or a community in civil life, in a factory town, or a cantonment area indicating the success or failure of an ointment with sulfathiazole for external application after suspicious intercourse, as measured by infection compared with present methods. No records are available of success or failure of preliminary ingestion of sulfathiazole tablets as a mode of preventing gonorrhea, or chancroid. No records are available as to the reliability of sulfathiazole in solution as a preventive of gonorrhea of the eyes of the newborn. No records are available as to the success or failure of physical barriers smeared with a lubricating cream containing five percent sulfathiazole.

Does the absence of the record indicate the lack of imagination on the part of public health officials? Does the absence of the record indicate the lack of ingenuity on the part of public health officials? Does the absence of the record indicate no medical officer on board a ship; no medical officer at a camp or cantonment; no medical officer in a factory has appropriated the new chemotherapy to an age old problem—the prevention of venereal disease by sexual exposure?

It were indeed a sad commentary on our public health officials and public health minded physicians if this were so, yet the record is blank. Perhaps, some daring soul has made these experiments and has not yet published them. In any event, let those in proper places not delay. Superstitions of the past, taboos of the past, these must be cast aside at least during the period of war and war emergencies. Every weapon in the armamentarium of the man of medicine must be utilized to avoid ill health through preventable communicable disease. Recent chemotherapeutic advances must join the vaccines and antitoxins. Gonorrhea, chancroid, granuloma inguinale, lymphogranuloma venereum, and syphilis are preventable, communicable diseases. They belong in the same category as smallpox, and typhoid. Prevention is better than cure. Until we have vaccines and antitoxins for the venereal diseases, we must improve our technic of avoiding them after exposure with the best means at hand.

The medical departments of the army and navy, the Public Health Service and other organizations, official and voluntary, should join forces in determining the availability of sulfathiazole by ingestion, sulfathiazole by topical application, sulfathiazole in lubricating creams with physical measures, as condoms, in the successful reduction of newly acquired venereal diseases among the military and industrial armies. In all walks of life, there are men who cannot resist exposure to venereal disease. We cannot afford to have them ineffective at any time; it is criminal to have them ineffective *now!*

More Male Births in Wartime

The old belief that in and after a war more boys are born than in normal times was confirmed by the experience of the first world war. During the last years of that war, and for some years afterward, the proportion of male births increased over the average figure, which is about one hundred and six live male births to every one hundred live female births.

All European countries showed this increase in masculine births, belligerents as well as neutrals. The sex ratio increased to 108.5 in Germany in 1919, to 108 in Austria in 1920. There was a noticeable rise in Australia, too, but no such increase was observed in the United States (nor in New Zealand). In the United States, at most four percent of the population was under arms at any time, and this not for a long period, while in the principal European populations concerned, from fifteen to twenty-two percent were mobilized and that for a long time. All the figures decreased again in the following years.

Many explanations have been offered for the solution of this mystery. As far back as 1742, the theologian and statistician, Suessmilch, who served as a field priest in the army of Frederick II, King of Prussia, had ascribed it to the interposition of Divine Providence in compensation for the great slaughter of male lives in battle. Another explanation is that mobilization of an army, by removing a large part of the male population, increases the average interval between pregnancies and thereby improves the ability of the maternal organism to support the male fetus which normally suffers greater mortality hazards than the female. Another hypothesis is that malnutrition and famine, which are frequently connected with war, favor the creation of a male embryo. This, however, is not supported by data on the sex ratio at birth during famines in India.

Today, two reasons have been found to explain the higher male birth rate in the years after a war. One is the fact that, as a consequence of the high number of

marriages contracted after wars, the number of first-born children increases and that among the first-born the rate for boys is especially high, in all countries. The second reason is the decrease of miscarriages after wars, due to the high desire for more children. This means a higher male rate among live births, because among still births and miscarriages there is a much higher proportion of males than among live births.

According to the latest data, for every one thousand live births in the United States there are thirty-two still births, eighteen males and fourteen females, or a sex ratio of 128 males to 100 females. These are explanations which seem probable but the problem has not been solved entirely so far.

Lore of the Old Time Herbalists

At the present time in Europe and in Britain especially, resort is being had to medical remedies derived from plants and herbs. A few of such medicines are powerful, foxglove, for instance, but most are simple, as for example, tea made from raspberry leaf.

The early herbalists combined astrology with their profession, while those of the sixteenth century added another belief, known as the doctrine of signatures. The great Paracelsus first propounded this theory. He held that the external always bears the stamp of the internal; that nature has no secrets; that plants are "signed" by their shape and growth, color and scent, and that from a consideration of these properties it is possible to understand their healing "virtues". Giambattista Porta (1545) went further and endeavored to prove that pimples could be cured by plants which have a spotted appearance, skin diseases by scaly plants, and sores by glutinous plants, as mistletoes. He applied a similar theory to the colors of flowers; inflammation soothed by flame-colored flowers, and so on. The eating of long lived plants was conducive to longevity, flowers resembling butterflies were antidotes to insect bites and baldness was healed by maidenhair fern.

Nicholas Culpeper was the most famous of the British astrologer-herbalists of the sixteenth century, who, when at Cambridge University, studied Greek and Arabian medicine and in 1640 or thereabouts, set up as a physician in London. Culpeper was a brainy man with a good education, despised the works of former herbalists and made exceedingly rude remarks concerning British physicians of his day, describing them "as a company of proud, insulting, domineering doctors, whose wits were born about five hundred years before themselves". Culpeper was the last of the British occult herbalists. He was loved by the poor of the neighborhood in which he lived and practised.

Of the herbs put forward by the British commission's memorandum on nature remedies, nettles, foxglove leaves and dandelion roots have first place. Of the foxglove, Culpeper had this to say: "It is under the dominion of Venus, being of a gentle cleaning nature. The herb is familiarly and frequently used by the Italians to heal any fresh and green wound and the juice thereof is also used in old sores to cleanse and heal them." King's evil figures among the many diseases cured by the foxglove and Culpeper concludes his eulogy this, "myself am confident of an ointment of it is one of the best remedies for a scabby head that is".

It must be borne in mind that the remedial value of herbs and plants was known to the ancients, while as far back as 1472 Bartholomæus Anglicus wrote a herbal. The subject is fascinating and not the least interesting part of it is the folklore connected with herbs.

Waste Not Want Not

Waste not want not is a valuable axiom at all times but now, when destruction is rampant almost everywhere, it is a slogan which is of the utmost importance not only to be preached but to be practiced rigidly. In this country and in Britain food waste or misuse is more in evidence than in perhaps any other country at the present time. In Britain, it is of supreme consequence not to waste food or its inhabitants will assuredly want.

At the Royal Institution in London, Sir Frederick Keeble, some time ago gave a lecture on the nation's (Britain's) larder in wartime. He pointed out that an essential part of food production is to put the food to its full use. Incredible quantities are misused and wasted in Britain. Farmers are asked to grow another million tons of potatoes when already not far short of a million tons are thrown away in the form of peelings, the best part of the potatoes too. The people are told to eat more green vegetables; but cooked, as they are now and the water they are cooked in thrown away, much of the goodness goes into the sink, something like thirty thousand tons of nutritions minerals every year.

The speaker urged that to bread should be restored all the good things, nerve tranquilizing as well as body building, that the wheat grain provides. As things are at present the miller removes a lot of these valuable foods from the grain he grinds into the flour for bread. Whole wheat bread can and should be made. Food production means more than bulk and weight; it means also the right food and its thrifty use; it means wisdom and energy in food production and forethought in its use. Thus scientific knowledge has given a new and profound meaning to the old saw, "waste not want not," accentuated in Europe especially by destructive warfare.

Papers and Addresses

TONSILLECTOMY, ADENOIDECTOMY AND CRYPTOTOMY

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I began the practice of otorhinolaryngology about thirty years ago, during the period when the operation of tonsillotomy was giving way to tonsillectomy. In a large clinic where I worked, it was the custom on children's tonsillotomy day to have a husky orderly sit in the patient's chair, grasp the child's legs between his own, wrap one arm around its arms and chest, the other around its head, and hold the child firmly against himself, while a nurse back of the orderly reached around and held a gag in its mouth. The operator then quickly sliced off the protruding portions of the tonsils with a Matthieu or McKenzie guillotine and excised the adenoids with a Gottstein curette. The child was then released, carried or led quickly to a sink, and instructed to wash his mouth with water. There was no preliminary preparation of the child and it was taken home as soon as the bleeding stopped. There was no hospitalization unless severe bleeding developed. Enucleation of the tonsil by dissector and snare was just coming into vogue for adults.

Tonsillectomy

Then came Sluder and his followers with various types of enucleating guillotines, and tonsillectomy became a major operation, with hospitalization, preliminary preparation of the patient, blood coagulation tests, anesthesia and after-care.

In the hands of a competent operator, the Sluder (22) method of tonsil enucleation is dramatic in the speed and completeness with which the tonsil is removed. Did these attributes of successful operation spread their aura over the purpose of the operation? Be that as it may, enucleation of the tonsil, by guillotine or snare, became the universal operation. It is no exaggeration to say that, in the past three decades, in this country, fully thirty millions of tonsillectomies have been performed, by thousands of operators (1). No alternative procedure has been proposed except electrical fulguration and that is directed more toward shrinking the tonsil as a whole than eliminating infection from it. Possibly, the lack of any other adequate procedure has maintained enucleation in its dominant rôle.

In the past few years, however, the analyses by many students of the results of tonsillectomy have cast more than a little doubt on the value of this procedure in preventing, alleviating or curing heart disease, rheumatism, nephritis, pulmonary disease, gastrointestinal troubles, etc., which it was hoped and believed it would do. A recent paper by A. D. Kaiser (2) gives cautious expression to this doubt. Conversation with physicians brings out more than cautious doubt; in fact, it produces frank skepticism and derision. However, those who condemn the ritualistic use of tonsillectomy in children or admit its failure to accomplish the purpose desired, qualify their conclusions with the statement that, in a certain percentage of cases, tonsillectomy is beneficial. Owing to these indecisive views of writers on the subject, when a physician is confronted with a case of hypertrophied or diseased tonsils, the weight of custom and precedent, the knowledge of the undoubted benefits that have accrued after tonsillectomy to some patient in every physician's practice and the lack of an alternative procedure practically force him to advise tonsillectomy.

In view of this state of affairs, it behooves the medical profession to reexamine the evidence in its possession on the rôle that the tonsil plays as a disease dispersing factor and to reappraise the value of tonsillectomy, with the purpose in mind of confirming it as the procedure of choice, of modifying it, or of discarding it, as may best serve the needs of the patient.

Much of the failure of investigators to reach an agreement on the rôle that the tonsil, by its presence or absence, plays in the development of the child is due to the fact that there is no uniformity in the age groups studied, in the length of the period of the study nor in the standards used. The greatest difficulty, however, in evaluating the part that the removal of the tonsils plays in the development of children is the fact that tonsillectomy in them is seldom done without an adenoidectomy being done at the same time. Practically all writers revolve their arguments around the tonsil. A. D. Kaiser (2), whose study of 4400 children is probably the longest, most comprehensive and most careful of any, mentions adenoids only seven times in his last paper and of these, four were in conjunction with tonsils. The whole effect, even inadvertently, is to obscure the importance of the adenoids and enhance the importance of the tonsils, not only in the mind of the reader, but also of the writer. I have seen no paper where an attempt was made to separate cases into groups according to whether the tonsil symptoms or the adenoid symptoms were more prominent, or according to the severity of the symptoms of either.

In order, therefore, to decide whether tonsils or adenoids were responsible for a patient's condition, whether the tonsillectomy or the adenoidectomy has improved, left unimproved or harmed the patient, it becomes necessary to separate the effects of adenoidectomy from those of tonsillectomy. It is almost impossible to do this from published statistics and the physician must depend on impressions gained from observation of patients where the symptoms pointed to either the adenoids or the tonsils as the major or the only offender and on logic based on his knowledge of anatomy, physiology and pathology.

Men who have practised medicine twenty-five years

or more can recall the "adenoid facies" of children, that is, the pallor, the thin cheeks, the open mouth, the pinched nostrils, the disproportionate thickness of the nose at the bridge and the mucopurulent nasal discharge or "snotty nose". This picture has almost disappeared. Children's faces are fuller, the color is better, there is better proportion between the nose and the face, the nose itself is better proportioned, the mouth is closed and it is very seldom indeed that the "snotty nose" is seen. The body development, also, is better. Better food and clothes, warmer homes and cleaner habits cannot account for all this change because the adenoid facies was found in children that were adequately provided for.

When we consider that the adenoids are located in the vault of the nasopharynx, where the posterior nares are only a little larger than the anterior nares, we can readily see that even a small hypertrophy will cause considerable obstruction to the passage of air through the natural humidifying and warming passages of the nose and we can understand how hypertrophied adenoids can cause insufficient oxygenation of the blood. When, in addition, we consider that the nasal mucous membrane is very absorptive, we can also see how toxic absorption from the purulent discharge of an infected adenoid can take place and produce its deleterious effect on the system.

If, after a combined tonsil and adenoid operation, the nasal obstruction disappears, isn't it reasonable to attribute the disappearance to the adenoidectomy? Tonsils do not cause nasal obstruction. If the purulent discharge disappears at the same time, is it not reasonable to credit it to the same cause? Tonsils do not cause purulent nasal discharges.

Adenoidectomy

It is possible to identify the beneficial effects of adenoidectomy by a phenomenon noticed in adult life. Nowadays, sinusitis is diagnosed far more frequently than two or three decades ago but rhinologists see fewer cases of nasal polyps now than they did then. The sinusitis cases existed in greater numbers then but were called chronic rhinitis. The great majority of cases with nasal polyps that I have seen in recent years were in adults whose childhood was passed in the pretonsillectomy-adenoidectomy era and whose tonsils and adenoids were not removed. The sinus disease evidenced by the polyps had its inception in the rhinitis caused by the adenoids in childhood. I think it is safe to say that tonsils or tonsillectomy have nothing to do with the presence or absence of sinusitis. So that we can properly credit adenoidectomy with the good local and general health enjoyed by those who escaped sinus disease by having been adenoidectomized.

Since adenoidectomy can be credited with the major benefits that accrue after a tonsil and adenoid operation in childhood, namely, the removal of nasal obstruction and infection and the subsequent proper aeration of the nasal sinuses, oxygenation of the blood and improved facial and physical development and health, the field left to be surveyed for the benefits of tonsillectomy is considerably restricted. This field may be divided into local and general. Locally, we must remember that the tonsil is a lymph gland and, like other lymph glands, is affected by infections in the regions that it drains. Thus, it may become enlarged and painful in infections of the nose and accessory sinuses, adenoids, the ear, etc. This enlargement may be only temporary and must be discounted. Mere enlargement is seldom an indication for removal. We do not excise axillary or trochlear glands because they are enlarged by infections of the fingers. This is well illustrated by Ellis and Russell's (3) study of four thousand Basque children who lived in England during the Spanish civil war. Many of these had enormous tonsils but seemed completely unaffected by them.

We must remember the special anatomy of the tonsil which makes it susceptible to primary infections. I refer to its location in the mouth, directly under the oral epithelium, and to the crypts with which it is permeated. When, as a result of frequent secondary infections, the crypts become filled with desquamated epithelium, extruded lymph cells and mucous discharge, they become good culture nests for bacteria that come by way of the air, lymph or blood. The tonsil then becomes infected because it carries the infection in its own belly, so to speak, and must drain itself. If this is repeated often enough there develops an imbalance between the infection and the protective powers of the tonsil and the tonsil stays chronically congested and subject to frequent acute attacks. This condition is then an indication for surgical interference.

The Tonsil as a Focus of Infection

Generally, the tonsil has been the subject of an enormous amount of study and debate as a dispersive agent of infections to other parts of the body. Every condition that could be attributed to a focal center has been scrutinized. As stated previously, the lack of uniform standards and the simultaneous excision of the adenoids vitiate much of the value of the studies made on large groups of children. Nevertheless, the total number of children studied is so large that certain impressions can be obtained from all the studies and combined to make a definite picture of the part that the tonsil does or does not play as a dispersive focus of infection.

The Medical Research Council of London, England (4), after studying the records of 29,766 boys and girls, about half of whom were tonsillectomized and half untonsillectomized, concluded that the presence or absence of the tonsils made no difference as regards the incidence of coughs, colds and sore throats. Kaiser (2), in his study of 4400 children, comes to the same conclusion. In rheumatism, judging from the reports of Stetter (5), who studied 331 cases, Turnley (6) with 3172 cases, Ash (7) with 532, Allan and Baylor (8) with 108 cases, Kaiser (2) with 597, the general conclusion is that the presence or absence of the tonsils has no influence on the incidence or course of the disease. In nephritis, Illingworth (9) and Kaiser (2) hold that tonsillectomy does not influence the course of the disease, does not prevent it, but may, on the contrary, predispose to it or cause it. In poliomyelitis, Sabin (10) Eley and Flake (11), Toomey (12), and Stillerman and Fischer (13) hold that excision of the tonsils does not prevent it but may invite its incidence if performed during an epidemic. In allergy, Bullen (14), Hansel and Chang (15), Piness and Miller (16), Cunningham (17), Hansel (18), Clark and Rogers (19) and Waldbott, Ascher and Giese (20) advise against tonsillectomy as having no curative value but

possibly bring on an attack. Similar negative conclusions are drawn from studies of the effect of tonsillectomy in tuberculosis and diabetes. In pneumonia, Kaiser (2) believes that the absence of the tonsils predisposes toward the infection. My own observations indicate that laryngitis and tracheitis are more frequent after tonsillectomy, the tonsils evidently having acted as barriers.

The teleological existence of the tonsils as barriers is indicated by the frequency with which lymphoid tissue is found in the tonsillar fossa after tonsillectomy. Some writers hold that these "recurrent tonsils" are remnants after incomplete operation. The frequency with which these "recurrent tonsils" are found would be a sad indictment of the care and skill of the medical profession if they were unremoved fragments. I do not hold this view. I have been present at many operations where the most meticulous care was used to remove every vestige of tonsillar tissue, yet, after the lapse of six months, a year, or more, well developed masses of lymph tissue were found. I believe this to be an indication that nature needs a lymph gland in this location as a barrier to infection.

Results of Tonsil Removal

In adults, where there is no adenoid growth to complicate the picture, the effect of removing diseased tonsils can be evaluated more easily. Here, however, we have no such great numbers assembled for statistical study and we must rely on impressions from isolated cases scattered here and there. We cannot, moreover, study adults over such long periods. However, adults usually do not consent to operation till the clinical symptoms are well established so that the results, good, bad or indifferent, are clearly marked. In this group of cases the greatest benefits are derived locally, i.e., there is relief of sore throat or peritonsillar abscess by the removal of infected tonsils. Reimann and Haven (21), in their review of the influence that tonsillectomy has on the relief of various conditions supposedly due to diseased tonsils, express very little faith in the benefit derived from the procedure. My own observation is, that in some cases of single joint infections where a small joint like a finger joint is involved, removal of diseased tonsils causes relief of the joint condition. This does not happen when more than one joint or a large joint is involved.

In the light of the foregoing, we see the tonsil in a true perspective. It possesses no mystical attribute for the dispersion of disease to other parts of the body and its removal causes no such sure and widespread elimination of disease as to make tonsillectomy a necessary ritual in children. It is simply a lymph gland, like other lymph glands. Like them it becomes involved when infection develops in the region which it drains. The special feature which distinguishes the tonsil from other lymph glands is the presence of the crypts. But is it necessary to remove the whole tonsil and destroy its barrier effects because one or more crypts are pockets of pus?

Crypts of Tonsils

At this point it is pertinent to refer to a few facts about the crypts of the tonsil and their contents. The number of crypts in a tonsil varies from a few (two to three) to fifteen to sixteen, depending on the size of the tonsil. They are roughly divided into a superior and inferior set by a few strands of connective tissue that pass horizontally through the tonsil about its middle. The opening of a crypt can admit a probe 1-2mm. in size, though normally it is closed by atmospheric pressure. The crypts vary in length from 2 to 17mm. Their general direction is horizontal, with a downward slant toward the blind end. This slant increases in the upper crypts, so that those that open on the upper pole of the tonsil may be vertical.

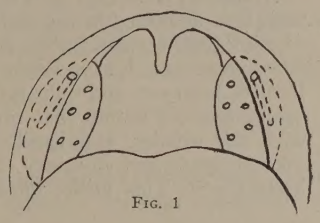

FIG. 1

Sometimes several crypts unite at the bottom and sometimes a crypt branches, forming a T-shaped cavity, one branch going up, the other down. The normal crypt is collapsed, but as a result of inflammation may become filled with a yellowish-white plug of cheesy consistency, visible as a round spot at the opening. When the tonsil is squeezed, a small drop of pus may appear at the opening and when the pressure is increased or when the crypt is incised, the plug is extruded. The plug usually has a very foul odor and on microscopic examination is seen to consist of epithelial cells, blood cells and all types of pus cells, together with mucous and detritus. The picture is, in fact, similar to that of pus from any epithelial surface. When the plug is stirred up with a little water, the result looks, macroscopically, exactly like pus.

What causes the cheesy, semisolid consistency of the plug? Two explanations are possible. One, that the inflamed epithelium of the crypt is desquamated and, mixed with phagocytes, serum and mucous, is extruded from the crypt into the mouth before it is liquified to form ordinary pus. However, the foul smell that comes from the cheesy material speaks against this speedy elimination, so that the second explanation is the more probable. This is that, owing to the tendency of the crypt to stay closed, the pressure of the atmosphere, of the muscles of the pharynx, of the tongue and of the food-bolus in swallowing, the fluid in the extravasated material is squeezed out, leaving the solid contents behind. Repetition of this process gradually increases the size of the plug and fills up the crypt, the foul smell developing with the time that the plug stays in situ. The cheesy material may properly be regarded as condensed pus, bearing the same relation to ordinary pus that condensed milk bears to ordinary milk. This is borne out by the fact that the largest plugs are found in the crypt at the upper pole of the tonsil. In this location, the roof of the supratonsillar fossa, formed by the union of the anterior and posterior pillars, presses down on the openings of the crypts and so hinders emptying. The mechanism of this process is shown diagrammatically in Fig. 1.

The retention of this highly septic, condensed pus in the upper crypts undoubtedly accounts for the development of peritonsillar abscesses in this region and its presence in any crypt accounts for the continued congestion of the tonsil and its tendency to recurring attacks of acute inflammation.

Cryptotomy

If we regard this cryptogenic cheesy plug as condensed pus, we must admit the necessity of eliminating it as rapidly as possible. But is tonsillectomy the only method of accomplishing it? I submit that we can do this and still retain the lymphatic tissue of the tonsil for its barrier effect by the operation of cryptotomy. Cryptotomy, or incision of a crypt, is not a new operation. It is described in the *Reference Handbook of the Medical Sciences* and in text-books published thirty or more years ago. I have never seen the operation performed, however, and only rarely heard of its use, by contemporaries within that time. It can be performed with any slender, long-handled bistoury but, for the sake of speed and efficiency, I have devised a special knife for it. This knife, illustrated in Fig. 2, has a

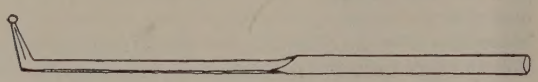

FIG. 2.—Special knife devised by the author for performing the operation of cryptotomy.

short, double-edged blade with a dull point, set at a 45 degree angle on the flat on a long, strong handle. The blunt point is introduced into the opening of the crypt and acts to guide and control the cut of the blade. The double edge facilitates cutting upward or downward and makes possible the use of the one knife for the right or left tonsil. No anesthesia is needed, since the tonsil itself is poorly supplied with sensory nerves. There is so little bleeding that it is hardly necessary to rinse the mouth afterward. It is usually necessary to incise only one or two crypts in each tonsil because only one or two contain pus. There is very little tendency for the incision to close and reform the crypt and what little there is can be overcome by passing a probe along it once or twice during the following days. The former crypt becomes a shallow trench and, as a result of the shrinking in size of the tonsil that follows the evacuation of its pus, may merge with the surface and disappear. If all the pus is eliminated, the tonsil assumes a healthy, pale-pink color and shrinks in size. I have seen tonsils whose upper pole was hidden in the supratonsillar fossa shrink till the upper pole was level with the middle of the pillars.

In some cases of peritonsillar abscess, if the offending crypt can be detected at the onset, incision of the crypt and evacuation of its contents may prevent the further development of the process. The operation of cryptotomy is of benefit in a negative way also, since it avoids the mutilation of the pillars and uvula, the profuse hemorrhage and the other hazards, mishaps and bad sequelæ that accompany and follow the operation of tonsillectomy.

Acknowledgment

In conclusion, I wish to express my appreciation for helpful criticism during the preparation of this paper given by Dr. Charles B. Meding and Dr. John J. Decker of the Harlem Eye and Ear Hospital.

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36 WEST FORTIETH STREET

Endocrine Treatment of Involutional Melancholia

N. O. Rothermich, B. Postle and L. M. Foltz, Columbus (*Arch. Neurol. & Psychiat.* 45:752 (May) 1941) report that twenty-four patients with depressive psychoses following the menopause were given large doses of estrone and/or testosterone. Fourteen patients presented true classical cases of involutional melancholia and ten had involutional psychoses with atypical features. In the first group improvement was but little greater than usually occurs spontaneously. Seven of the ten atypical cases improved markedly. It is concluded that, although endocrine therapy of classical involutional melancholia is of doubtful value, women with atypical depressive psychoses developing during or after the menopause may show remarkable improvement under estrogen and androgen therapy.

ONE-STAGE RHINOPLASTY FOR DEFLECTED BONY NOSE

With Sequelae

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The case of L. M., a young man, nineteen years of age, is presented as an interesting rhinoplastic problem, the solution of which includes every phase of nasal plastic surgery. History revealed a baseball trauma to the left side of the nose at the age of five. There had always been marked obstruction of the right nasal passage, limited capacity of the left with most of the breathing as a result of these taken care of by his mouth. The patient gave signs of cosmetic, functional, and developmental inferiority.

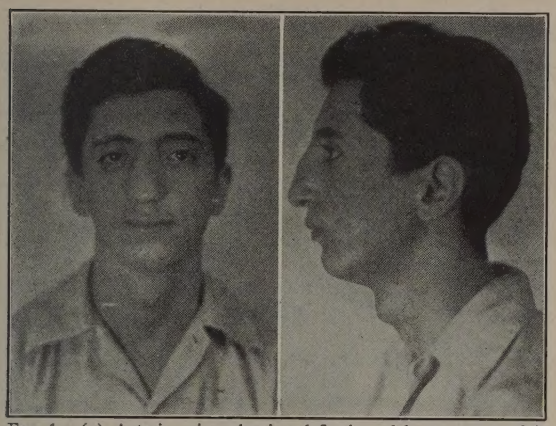

FIG. 1.—(a) Anterior view showing deflection of bony nose to right. Marked concavity of left and convexity of right side of nose. The dislocation of the septum was responsible for flattening of lower two-thirds of nose. (b) Left profile showing hump of bony dorsum and depression just above tip.

Examination revealed: 1. Deviation of the septum to the right. 2. Hump of the nasal dorsum. 3. Concavity of frontal process of left maxillary bone. 4. Convexity of frontal process of right maxillary bone. 5. Dislocation of the septum to the right. 6. Dislocation of upper lateral cartilages. 7. Complete obstruction of right air-way.

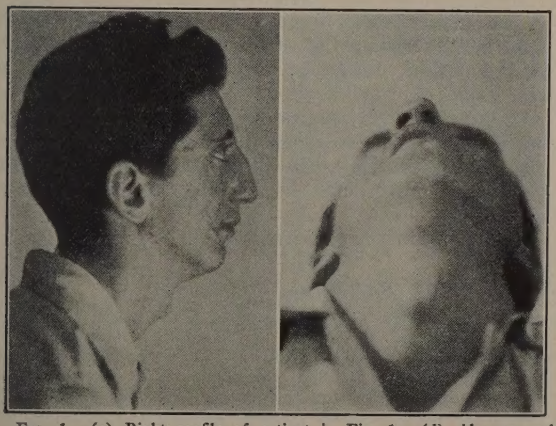

FIG. 1.—(c) Right profile of patient in Fig. 1a. (d) Alæ unequal; septum protruded into left vestibule; upper lateral cartilages were displaced.

Preoperative planning: 1. Photographs were made for permanent records (Fig. 1, a, b, c and d).

2. Plaster of paris masks made possible visualization of the deformity in three dimensions (Fig. 2).

3. Operative procedure would correct each of the seven deformities in order.

Operation

Upon admission to the hospital vibrissæ were clipped and a bichloride of mercury dressing applied to the face. Iodine and alcohol were used for disinfection of the operative field, after which the patient was draped with sterile towels. The nose was anesthetized by the infiltration method.

The local anesthetic used was monócaine hydrochloride, one and one-half percent, with epinephrin 1:100,000. This formula was selected for the following reasons:

FIG. 2.—Plaster of paris mask showing deformity of nose.

(a) The vasoconstrictive properties of monócaine hydrochloride make it unnecessary to use large quantities of epinephrin (adrenalin) with this local anesthetic. A dilution of epinephrin 1:100,000 when used with a monócaine one and one-half percent solution is sufficient to control bleeding and maintain a dry field.

(b) Monócaine hydrochloride is a potent but remarkably safe local anesthetic. It is less likely to produce depressive or toxic symptoms than is procaine (novocain) but at the same time will induce anesthesia of greater depth and longer duration than an equivalent procaine concentration.

1. The deviation of the septum was corrected first by means of a submucous resection for which Killian's incision was used.

An incision was then made on both sides between the upper and lower lateral cartilages by means of a double-edged curved knife. By means of a periosteal elevator, undermining of the periosteum was completed laterally to the nasolabial folds and medially over the nasal dorsum. A pull knife and button end scalpel completed the separation as far as the columellar border of the septum.

2. The hump of the nasal dorsum was removed by

means of saws. A profile angle of thirty degrees was produced by the engagement of the saw at that angle and the cutting through of the nasal bones, the perpendicular plate of the ethmoid and the dorsal border of the cartilaginous septum.

The septum, it will be noted, was in this way released at the internasal suture. The marked concavity of the frontal process of the left maxillary bone was the result of trauma to that side and the subsequent transfer of the nasal elements to the opposite side. In order to restore the nasal contour to the mid-line an area to receive the restoration had to be created.

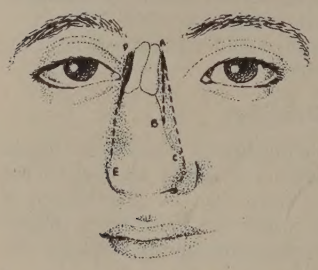

FIG. 3.—Drawing showing size of triangle removed from left concave side of nose and line along which osteotomy was performed on right side of nose.

A triangular section of bone (A, B, C) was marked out on the concave side (Fig. 3). The size of this triangle was suggested by the amount of deviation from the normal.

3. The lateral aspect of the pyriformis was exposed and a double edged curved knife, introduced through the vestibule, separated the periosteum over this area. It must be pointed out, that the periosteum facing the nasal aspect of the bone was also separated after proper anesthesia had been applied.

Osteotomy was performed twice freeing the marked out triangle of bone which was removed by means of bone forceps.

The convexity of the right side was corrected after osteotomy through the frontal process of the maxilla of that side (Fig. 3, D, E). Digital displacement of the freed nasal pyramid was accomplished by means of pressure toward the left. It was necessary to make sure that the frontonasal suture and the plate of the ethmoid of the right side were completely fractured so that the deformity would not recur. The nose was now

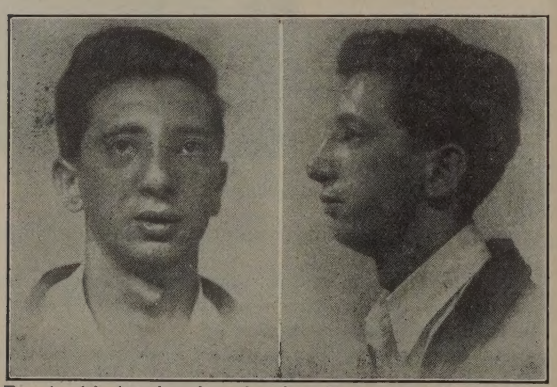

FIG. 4.—(a) Anterior view of patient. Four weeks after operation. (b) Left profile corrected.

in the mid-line position since the convexity was absorbed by the space of the excised triangle which at the same time eliminated the concavity that had been present on the left side.

5. The dislocated septum snapped back into its normal position in the groove of the vomer as digital replacement occurred (Fig. 4).

The upper lateral cartilages were freed from the septum by means of blunt scissors which severed them at their angle where they joined it. The nostrils were then retracted upward and the columellar border of the septum exposed. This was then held by means of an Allis clamp and a triangular section of septum, with apex at nasal spine, was excised.

6. The dislocation of the upper lateral cartilages to the right side was corrected when the septum snapped into the groove in the vomer. However, the upper lateral of the left side was hypertrophied because of malposition for so many years and it was resected. The mucous membrane was left intact. The nostrils were now found to be equal (Fig. 1, d).

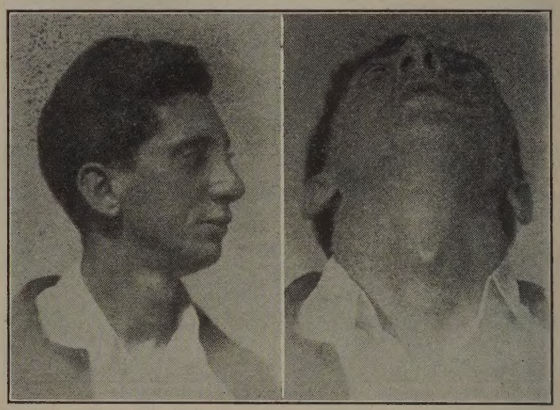

FIG. 4.—(c) Right profile of patient. (d) Alæ corrected; septum relocated and deviation corrected; upper lateral cartilages replaced into position.

7. Complete obstruction of the right air-way was now removed. This was accomplished only after the first six factors had been corrected.

A light packing was inserted into the nostrils and a stent dressing was used for immobilation. The postoperative results were good. (Fig. 4, a, b, c, d).

Summary

1. Complete correction of a deflected bony nose with a deviated, dislocated septum obstructing the right air-passage was accomplished. The operation was done in one stage.

2. Function and appearance have both been greatly improved. The air passages are now both free.

3. The operative steps as outlined, carried out in logical procedure made possible the final, satisfactory result.

231 EAST SEVENTY-SIXTH STREET.

Gonorrheal Ophthalmia

J. L. Blanton (*West Virginia M. J.* 37:130 (March) 1940) reports a case of gonorrheal ophthalmia in a premature infant treated with sulfathiazole, following the usual use of one percent silver nitrate instillation and a course of ten percent argyrol with hourly boric acid irrigations, a three pound, two ounce premature infant, with severe conjunctivitis, was given one-half grain of sulfathiazole in each gavage feeding every three hours. There was definite improvement in forty-eight hours and in seventy-two hours the discharge had ceased and a negative smear was obtained. After four days of this treatment the infant was well except for photophobia. There were no toxic symptoms. There was complete recovery with perfect corneæ.

Symposium on Disorders of Women

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DIFFERENTIAL DIAGNOSIS OF PAIN IN GYNECOLOGY

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New York, N. Y.

When in 1913 I published my first paper on the relationship between pelvic neuralgia and the organic diseases of the female, I referred to certain clinical conditions which at that time were certainly not correctly diagnosed but were treated under many different names. Many of those conditions we referred to were later classified by the French and Scandinavian medical schools as fibrositis, cellulitis, panniculitis, and so on.

Apart from my own articles which I wrote at intervals about the subject, especially in regard to the differential diagnosis of pain in women's diseases, several others were written by European doctors, e.g., Walthard, Liepmann, Seitz, Sellheim and others, who tried to cover the same subject. Some approached it from a psychogenic, others from a biochemical point of view. The biochemical angle in this connection was first effectively tested and introduced into medicine by Schade, and could be supported by Seitz and myself.

However, I was always aware of the fact that the biochemical findings in tissue changes and the distribution of specific electrolytes of water-salt balance and the pH factor within the tissues, was an interesting hint in the differential diagnosis of certain pains. But as a matter of fact, in order really to differentiate not only the subjective character of pains, one must investigate, in certain levels of the body surface, their radiating sector, their appearance, as referred and transmitted pain. Before going any further, I shall establish a certain basic classification of three pain groups.

Pain Groups

1. Pains produced mostly, if not exclusively, by diseased organs themselves, causing enlargement, pressure symptoms, adhesions, secondary disturbances of the circulation and of the nerve supply.

2. Pains produced by various changes in the connective tissue and their related tissues, for instance, in the fat, muscle fibers, sheaths, tendons, nerves, etc.

3. Pains which are elicited by brain storms, mental shock, hysterical impulses, or by mental exacerbation, organic or myoneurotic, and fibrotic pains of various origin.

It certainly would be worthwhile to cover the whole subject of the analysis and differentiation of pains in the female in an all embracing article. But in referring to many articles I have already published focusing the entity of the body-mind relationship concerning pain, I herewith wish to show the importance of fibrositis and affiliated conditions regarding the differential evaluation for diagnostic and therapeutic procedures.

Fibrositis and Allied Conditions

In 1934, Fred H. Albee introduced the term myofascitis for the purpose of grouping together certain conditions which had been diagnosed and treated under many different names, such as, lumbago, sacroiliac sprain, sciatica, strain of the lumbar muscles, rheumatism, low back pain, injured muscle fibers, etc. As Albee pointed out, the introduction of this term has great advantages, as it eliminates confusion arising from a multiplicity of different terms based on the anatomical location of the patient's complaints which are merely different manifestations of the same disease.

Anatomical and descriptive designations, indicating both general location and causative factors, are certainly a step forward in the evaluation of frequent painful conditions, including those in the female pelvis.

It is certainly no coincidence that many gynecologists of our times are fully aware of the fact that they can not correct and cure some diseases occurring in women by operation, but must seek the advice of the urologist, the orthopedic surgeon, endocrinologist or even the psychiatrist. Unfortunately, the patients themselves, lacking faith in surgeons, look for relief by chiropractors and cultists. In view of these factors we clearly recognize the importance of the effect of differential diagnosis of painful conditions in women with their tendency to functional disorders due to an unbalanced autonomic nervous system, due to frequent disorders of their ductless glands and their inclination to mental exacerbation and aggravation.

In all acute and chronic conditions pain, in its first appearance and its continuation, is a most alarming and distressing symptom for the patient, and for the physician as well. But there is a marked difference between the surgeon and the patient in the evaluation of the pain symptoms, a difference which points to the different conception of medicine by both of them. The patient is concerned only with her subjective impressions and often identifies the pain with the disease it-

self. In contrast to the feelings of the patient, the surgeon, backed by long experience, tries first to find the cause, localization, and radiation of the pain; whether there is a connection with other symptoms, and objective tests, and usually study the x ray findings in order to ascertain the routes of the pains and their rôle in the actual disease. As we all know, we are not always fortunate enough to find the underlying cause of painful impressions by our usual tests. However, every physician comes to the conclusion that the only way to evaluate the pain symptom in a sense which sanely satisfies physician and patient as well, is to render objective the pain symptom; also, to prove to the patient that the pain which she cannot control and which is subject to changes, caused by sources unknown to her and above her understanding, can voluntarily be produced without her cooperation, by her physician, by means of objective findings and methods.

In order to explain our findings and the methods used to produce the patient's pain at will, I must explain the sensations of pain one finds in the tissues of the abdomen (especially the pelvic walls) and the biochemical changes connected with their pathology. I furthermore deem it appropriate to compare their etiology and pathogenesis with the pathological symptoms and differential diagnostic signs, which will be found in these cases. I am of the opinion that it is really essential to show one reliable method for the differentiation of pains, including the various aspects in regard to the proper therapeutic procedures for quick and definite cure of the patient.

Reform and Advancement in Gynecology Diagnosis

The question as to whether the customary gynecological examination, in view of recent experience about tissue changes in the abdominal and pelvic walls, meets all requirements, or whether the diagnosis did not gain in clearness and conclusiveness by the addition of the new methods of examination, will be answered immediately. Without doubt, the usual bimanual method of gynecological examination shows in most cases a clear picture of the resulting changes produced by inflammatory processes, tumors and adhesions. It certainly permits us to find exactly what must be known about size, position, changes and correlation of the organs. At the same time it often leads us to entirely erroneous findings concerning the real malady, in so far as the rôle of the surface of the body and the pelvic wall in the production of pain sensations by the simultaneous pressure on the deeper lying organs, is overlooked or insufficiently considered. By the usual method the inside hand holds the examined organ while the outside hand seems to determine the size, mobility and sensitivity of the organ, its position in the pelvis, and its relationship to the surrounding neighborhood, by the usual bimanual manner. The skin, subcutaneous tissue, fat, muscles, peritoneum, blood and lymph vessels and nerves, lying between examined organ and outside hand are also pressed, and from all these tissues pain can be produced. Therefore, it is impossible for us to derive by this method alone, a distinct pain impression from the examined organ. What we actually find is a vague combination of pain impressions from the covering tissues and the supposedly diseased organs. When palpating the vaginal pelvic walls and the abdomen, especially the lower abdomen, we frequently find a large number of sensitive spots, on which the most tender touch will produce not only intense pains, but often tremor of the entire body. The clinician is frequently surprised by these reactions, if he is not familiar with these painful areas within the tissues themselves. Therefore, he rarely can objectively come to the correct conclusion about the genital disease when he is not familiar with these sources of pain on examination. To make an accurate differential diagnosis and to avoid serious diagnostic and therapeutic errors, it is necessary to supplement and support the usual gynecological diagnosis with the knowledge derived from the palpation and evaluation of the painful areas existent in the surrounding tissues of the genital organs.

The main difficulties in analyzing pain sensations, and in getting a satisfactory evaluation of the findings, rest upon the frequently missed possibility of exactly defining the seriousness of the often stratified, and in pain-affect combining components. There is no doubt in my mind that certain socalled organic diseases of the female genital tract, especially the inflammatory ones, can produce various impressions and sensations of pain. At the same time, I am backed by a large experience of about twenty-five years, that these pains are not entirely responsible for the patient's discomfort. They can be exaggerated by other pains due to fibrositis in the abdominal and pelvic walls. Frequently, the latter pain sensations are the only ones which really count in the evaluation of pain symptoms of our patients. In a recent article, Otto Steinbrocker has something to say on this subject. I quote. "Palpation and pressure are of no diagnostic value when the overlying skin is tender. With skin tenderness eliminated it is possible to determine whether there is any real underlying deep sensitivity. Often no further soreness is elicited and the deep structures are ruled out as a seat of trouble. The localization of the source of low-back pain, for instance, by local injections may provide much more accurate information than the various functional tests used in backache, particularly for lesions of the erector spinæ, gluteal, lumbosacral, sacroiliac and other low-back structures. Trigger points may be palpated where pressure not only elicits tenderness but may even initiate the troublesome pain."

Diagnosis of Abdominal and Pelvic Fibrositis in Gynecological Conditions

For more than twenty-five years, I have been able to prove the usefulness of the following supplementary diagnostic method in gynecology. There are two different sources of diagnostic mistakes concerning the pain sensation of the patient and its evaluation by the surgeon. First, fibrositis of the abdominal wall. In examining a female in the usual gynecological manner, in order to define the particular disorder of the female genital tract we are confronted with, we usually think only of defining the organic lesions. But, because we can seldom be guided by objective tests and x ray pictures, we ought to try to objectify the pain sensations of our patients which play unwillingly an important rôle in our diagnostic therapeutic considerations. Even if we rely on certain extended pain symptoms connected with some organic lesions, we are far from finding a differential diagnosis where the pain sensation plays more than an overrated rôle. Dr. Wal-

thard, of Zurich, and I have constantly pointed to the paradoxical picture of severe pain sensations experienced by the patient, and the minimum or absence of organic genital pathology. In recent years the study of fibrositis became a more prominent topic of medical authors and investigators.

Not long ago it was found that many of the pain symptoms of the abdominal wall, which so often led to faulty diagnostic and therapeutic considerations, can be distinctly defined and separated from the pain sensations of the deeper regions. I do not agree with Dr. Steinbrocker that only the skin is responsible for these pain sensations. In contrast to him I am convinced that pain arising from the connective tissue, fat, muscles, tendons and other parts of the human body affiliated with the connective tissue group, are responsible for the great number of pain sensations in women. To exclude this mistake, we can refer to the "analgesic block" as a diagnostic measure in defining the nature of these pains and correlating them to the diagnostic picture as a whole. "According to the method of Steindler, the center of the area of soreness is palpated and through a wheal over this point a needle is inserted. Often the advancing needle will strike the deep trigger point and the pain of which the patient complains is duplicated in quality and radiation. This relationship is confirmed by injecting five cc. of one percent procaine solution at the spot. The pain, and even disability, is abolished for several hours or longer.

"Diagnostic paravertebral lumbar and sacral nerve block frequently assist in the evaluation of low-back symptoms which may prove to be due to neuralgia from degenerative or inflammatory spinal arthritis.

"Pyriformis muscle block has been advocated recently by Haggart and others as an additional step in sciatic truncal injection. It has been shown by Frieberg that pathology in and about the pyriformis muscle, which overlies the sciatic, is apt to cause compression of the nerve trunk. For diagnostic purposes the regular technic of sciatic injection described by Labat and others is used."

I have used injections of cocaine derivatives for many years, not only to complement my diagnostic methods, in this respect, but frequently for curative purposes. I am of the opinion that my methods are equal to the foregoing. Keeping in mind that during the usual gynecological examination, we press, not only against the supposedly diseased organ and its surroundings, but frequently against an area of very sensitive fibrotic spots, nodules, and cords in the abdominal wall, I believe it is essential to be fully aware of the points of these tender indurations, nodules and bands in the abdominal wall suggesting fibrositis. There is one supreme rule in diagnosing these hypersensitive spots—never press too hard, learn to palpate very slightly, in order to find not only the longer standing indurations and nodules, but also the characteristic worm-like waves, which can be attributed to a muscle spasm of the adjacent region. In order to rule out these sources of pain in the abdominal wall, we are compelled to shift the area of painful fibrositis within the abdominal wall, and by pressing toward the supposedly diseased organ in the pelvis, it can be determined whether a pain is likely to arise or is definitely arising from an organic lesion. This is only the first step in ruling out unwarranted mistakes.

Differential Diagnostic Considerations Concerning the Pelvic Wall

There is still another mistake, whereby the rôle played by the tissue changes of the pelvic wall is not taken into consideration. Every obstetrician is well aware of the importance of the bony structures and the tissue changes during pregnancy and delivery. However, the gynecologist does not pay enough attention to the enveloping of the pelvic structures by connective tissues, muscles, tendons, etc., and their metabolic changes. These changes, caused by many different factors—disorders of the blood supply and of internal glands, faulty posture, intoxication, and often fibrotic indurations—should not be overlooked. The diagnostic procedure to objectify pains arising from the above mentioned changes in the pelvic wall can easily be accomplished. By using only the vaginal fingers, we find, without any specific anatomical localizations, widely distributed all over the vaginal wall and the underlying tissues, many hypersensitive and painful spots, already characterized in the same findings of the abdominal wall—sometimes by tender indurations and bands, and often only by the impression of the described worm-like waves of muscular spasm. In pressing against these painful spots and areas we can elicit in the abdominal wall and pelvis the same pain sensations at will and random, which are frequently described by the patient as sharp and throbbing pains.

Special Diagnostic Procedures

We have already mentioned the diagnostic rôle of analgesia. This can readily be applied to the abdominal and vaginal walls. Another quite accurate method has been described by Dr. Albrecht, of Munich, and myself, which presents reliable data concerning painful areas in connection with this supposed fibrosis. This method is a kind of galvanic palpation, and it shows, in practically every case of this kind, the decreased resistance of the body surface to the galvanic current. There are still other methods which can be useful in presenting objective proof of definite tissue changes in this area.

From the investigation of Dr. Shade of Kiel, we find in the diseased patient definite biochemical signs of fibrosis, or as Dr. Shade called it, myogelosis.

The experiments and the clinical consequences resulting from them have not been unanimously accepted by the medical profession. I myself am inclined to believe that we should pay much more attention to these findings. Schade and his coworkers have found that the colloidal state is easily changeable and is inclined to lead to reversible processes which are afterwards in their end results fully balanced again. According to recent findings in biochemistry, we visualize that all cells can be charged as a result of the vital activities of bioelectrocurrents. This type of electricity develops within the ions which are concentrated near the colloidal border lines. Local changes and differences of the concentration of ions within colloidal solutions are easily developed, for instance, by the different speed of the ions migrating in the different media and the varying ability of the media to dissolve the ions. It is apparent that all the activities which influence the development of the concentration of ions must necessarily change the electromotoric powers within the cells.

The colloidal albumens of the human body have a tendency to remain in a balanced colloidal state. On

the other hand, they are characterized by their hydrophilous tendency. Due to this ability to absorb and retain water, the colloidal surface becomes increased and swells and at the same time the electromotoric power is also increased. The albumens belong to the category of emulsion colloids that are highly reversible, but inclined to respond rapidly to changes of pressure and temperature. This fact will no doubt explain the sometimes reversible changes between the sol. and gel. states of these colloids. The liquid medium in which the connective tissue remains alive becomes acid due to the activities of the cells, which must be neutralized as quickly and as extensively as possible by a socalled buffer substance. If this process of neutralization cannot be obtained permanently and quickly, some fibers, especially the collagenous and elastic fibers, will increase their volume, even if only a small amount of acid is retained which cannot be neutralized quickly enough and permanently. This process is the biochemical correspondent of some pathology described by Aschoff, Graff and Kling, as fibroblastic edema, which later on results in fibroblastic scars. We are able to diagnose the nodules and bands by a skillful palpation in the region of the diseased connective tissue. It is very likely that local hyperacidity within the tissues leads to circulatory disturbances, which are responsible for decreased blood supply in the affected area. On the other hand, we know very well from experiments on animals that it is possible by increasing the acidity of the blood, for instance with phosphoric acid, to elicit a stage of increased irritability of the nervous system—more so, if and when the nonbalanced acidity affects especially the peripheral nerves and the neuromuscular end plates.

There are analogous processes in the physiologilogical activities of the muscle, which are irritated by a higher amount of acidity during labor, but can be easily balanced by the consequent relaxation of the muscle due to a higher blood supply and increased amount of oxygen within the connective tissues and the muscle itself. On the other hand, we have a perfect example of the influence of increased acidity on connective tissues which cannot be balanced by oxygen, buffer substances and higher blood supply in the puffed surface of a corpse which has been drowned for several hours.

Going back to our original topic, we can state according to the biochemical and pathological findings in the diseased connective tissue that fibrositis in the first stage is a reversible condition characterized only by local changes in the pH factor of the tissues and registered only by the biochemical test of Rohna and Michaells. The second stage would be the fibroblastic edema which has been already defined by pathologists. The third state is the fibrotic scar which can be either diagnosed by the pathologist or by the palpating finger of the clinician.

During the first and second stages of fibrositis, the experienced investigator in clinical practice will find the response of the waves, described as worm-like, under the palpating finger which soon can lead to an unexpected jerk of parts of the body itself.

Finally, we have another very accurate method of defining objectively these pain sensations by galvanic palpation due to the decreased resistance of the diseased surface of the body to the galvanic current.

Differential Diagnostic Considerations Concerning the Vaginal Wall

I am happy to be able to state that recently the rôle of the abdominal wall in regard to pain sensations has been pointed out by some American authors. In my opinion, unfortunately, the knowledge of these facts is still limited in regard to the rôle of the pelvic wall. An essential factor in eliciting pain sensations which do not originate in the genital organs, the rectum, or the bladder, is by no means clarified. I hope this contribution will lead to a better understanding and an evaluation of pain sensations which are connected with the vaginal wall and its surroundings.

In painful conditions, which can be referred to the genital diseases in women, I wish to make it clear from the beginning that in describing the origin and extension of these pain symptoms, we should not overlook the close connection with disturbances of the autonomous nervous system which affect the genital organs, bladder, and rectum. We shall see that tissue changes in the vaginal wall and its surroundings produces a different tone of the supplying musculature and indicate metabolic changes and variations in the tone of the autonomous nervous system. These factors and the consequent results of their influences on the affected parts of the connective tissue, including the muscles and the neuromuscular apparatus within the organs, are responsible for a great number of pain sensations which until now were only attributed to inflammatory and organic lesions.

As to the diagnostic features of the new method I am going to describe, I may be permitted to refer to many articles which have been published in the medical literature since 1911 about this subject. At that time, I described the diagnostic picture of pelvic myalgia and neuralgia. In 1925, Opitz and Hohne, of Germany, described the same in their diagnostic evaluations, partly based on my own investigations and publications. They were described very clearly, especially by Opitz, as spasmophilia in reference to the changes of the vaginal wall and its surroundings, and by Hohne in regard to the changes within the abdominal walls. Both these men agreed that the great number of diagnostic mistakes leading to improperly applied therapeutic and mostly surgical procedures must be attributed to lack of knowledge of these diagnostic methods considering the pain eliciting influences of the abdominal and vaginal walls. Needless to say that in many cases of chronic appendicitis, actually painless effects of malposition of the uterus, or of slighter cases of prolapse, useless operations have been performed, and are still being performed daily, due to the lack of knowledge of this new different diagnostic method; and how easy it is to apply this method if one is only used to it. In the same way that we can easily find these muscular spasms and bands in the abdominal wall we find the same diagnostic characteristics in the vaginal wall when we only palpate with our finger tips the four quadrants of the vagina. In other words, before we can examine our patients internally, or after we have finished this examination, in order to define the existing organic lesions, we are obliged to exclude the areas in the abdominal wall where pain was elicited. When we touch the pelvic wall, we do not find any special resistance or tension, except in certain spots which do not coincide with any specific anatomical

marks. Although we find these painful spots mostly at both sides of the urethra within the vaginal wall or near the rectovaginal ligaments or in the area of the pelvic foramina, we can find these stratified spots in any part of the vaginal structure, in palpating and pressing only on those which are characterized by a certain tendency to spastic contraction and consequent eliciting of pain sensation on the pressed spot. It will be a source of surprise to find that one is really able to objectify the pain of the patient.

In order to clarify my statement, I may be permitted to say that in touching or pressing these characteristic spots in the vaginal walls, we realize that we can elicit at will the same pains which have been described by our patients as the main symptom of their distress. But not only the pain symptoms limited to the genital area can be discovered by this method. Numerous other pain sensations attributed to a diseased bladder or rectum can be exactly diagnosed as nonorganic lesions mostly connected with some alterations in the autonomous nervous system. In this connection, I should like to call attention to the fact that many bladder symptoms are not the sign of a primary diseased bladder, but rather of a spastic bladder and ureter due to nervous or myalgic irritation. The same is true in regard to rectal spasms which can not be diagnosed clearly by another method, for instance, rectoscopy which mostly increases the spastic condition, but only through the palpating finger. It is apparent that many cases of vaginismus can be revealed in their causative factors by this procedure.

As for dysmenorrhea, we will find some hint when our considerations about the mechanical and endocrinological factors have failed.

I have tried to describe the special diagnostic feature of this method in women's diseases as a supplementary method to the well defined usually applied bimanual gynecological method of examination. As a matter of fact, I believe sincerely that these methods can hardly be described to such an extent that they are fully understood; they really must be experienced.

Conclusions

1. The rôle and the causative factors, including the biochemical, galvanic and pathological findings, of fibrotic tissue changes and related spastic conditions within the connective tissues were described.
2. A new supplementary method as an addition to our diagnostic procedure in revealing the causative pain factors in women's diseases was pointed out.
3. The importance of this new diagnostic method to objectify in sensations and to prevent unnecessary (especially surgical) procedures was emphasized.

5 East Fifty-Third Street

COMPLETE EXCISION OF HYPOGASTRIC PLEXUS FOR PRIMARY DYSMENORRHEA

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Primary dysmenorrhea frequently presents a very serious problem. These patients suffer from marked symptoms such as nausea, vomiting and incapacitating pain for several days every month. Many of them have gone through the gamut of psychotherapy. Intensive doses of hormones by injection give temporary relief. Many patients have become morphine addicts. Some patients have even had hysterectomy performed by surgeons, with the resulting menopause, causing them a great deal of distress for several years.

I have felt the ideal thing to do in these cases is to perform presacral neurectomy by removing the entire hypogastric plexus. This operation has been reported in the literature by many surgeons with gratifying results. Many surgeons are reluctant to do this operation fearing complications such as urinary and rectal incontinence, or because of the technical difficulties to be encountered.

I feel this procedure has a definite place in the treatment of primary dysmenorrhea, and the technical procedure should not be difficult if the surgeon studies the anatomy of hypogastric sympathetic plexus.

Anatomy

The anatomy of the pelvic sympathetic nervous system may be as follows:

The presacral nerve and hypogastric plexus are made of fibres derived from the lumbar sympathetic ganglia of both sides. The origin is below the inferior mesenteric artery, at the level of the first sacral vertebra, and the plexus divides into two distinct nerves, called the inferior hypogastric nerves. These pass down as the limbs of an inverted Y into the right and left lateral rectal spaces, in a plane superior to the sacral vessels, and terminate in a mass of nerve fibres and ganglion cells called "hypogastric ganglia." These lie on each side, below the peritoneum and the fascia covering the lavator ani muscles. From these the sympathetic fibres are joined by the parasympathetic fibres, from the lumbar and sacral nerves, to form the plexus of Frankenhäuser covering the side of the uterus and each broad ligament.

Operation

With spinal anesthesia, a paramedial incision is made extending to the level of the umbilicus. After thorough exploration of the abdomen, the bowel is packed off, and the rectosigmoid is drawn to the left side.

The posterior parietal peritoneum is recognized and a midline incision is made in the peritoneum from the bifurcation of the aorta to a point in the hollow of the sacrum opposite the third and fourth sacral vertebræ.

Guy sutures of silk are passed through both edges of the peritoneum and this gives adequate exposure of the retroperitoneal space. A dry field should be kept so there will be no difficulty in recognizing the hypogastric plexus and nerve. This dissection is carried as far as the origin of the mesenteric artery where the plexus is divided. All blood vessels should be tied with ligatures.

Great care should be taken not to injure the inferior mesenteric vessels and its hemorrhoidal branches. All fibres entering the plexus should be dissected out, down to its bifurcation into the hypogastric nerves.

Each branch should be dissected carefully and isolated down to a point where it enters the broad ligament.

A word of caution should be given. The dissection should not go below the point where it enters the broad ligament, as it is possible to injure the parasympathetic system and therefore may result in urinary incontinence.

The common iliac vein and middle sacral vessels and ureters, which lie behind and lateral to the plexus, must be avoided. After removal of the hypogastric plexus, the parietal peritoneum is sutured and any other pathological conditions corrected.

Report of Cases

A series of fifteen cases of primary dysmenorrhea in which the hypogastric plexus was excised were followed for one year with the following results:

All patients were completely relieved of their pain. The age of the patients varied from sixteen to forty-five years. Six patients were married, and several had children. The symptoms manifested by all were severe pain, with nausea and vomiting. Others complained of pain in the rectum and vagina, some had diarrhea. All these patients had had treatment, ranging from endocrines to excision of ovary and uterine suspension.

Complications.—There were no complications following excision of the hypogastric plexus; none required catheterization or special treatment.

Results of operation.—Ninety-six percent of the patients had complete relief; the remainder had partial relief.

Conclusion

Counseller and Craig report ninety percent satisfactory results in forty cases following presacral neurectomy. Marshall and Poppen report ten cases with good results. Cotte, after treating three hundred cases, reports complete relief with the exception of two cases, not relieved. All observers are agreed that a properly performed presacral neurectomy is followed by good results.

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1269 GRAND CONCOURSE

THE TREATMENT OF TRICHOMONAS VAGINALIS VAGINITIS WITH ACETARSONE MEDICATED TAMPONS*

A Study of Fifty Cases

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The flagellate parasite, Trichomonas vaginalis, described by Donne in 1837, is now generally held responsible for the characteristic vaginitis associated with its presence. Many forms of vaginitis, previously regarded as nonspecific types, are now recognized as Trichomonas manifestations by routine microscopic examinations. The incidence of Trichomonas vaginalis has been variously reported as 13 percent by Moench (1), 25.5 percent by Karnaky (2), and 33.8 percent by Corbit, McElroy and Clark (3). The Trichomonads are often found in the vagina without any concomitant pathological changes, when their presence alone requires little, if any therapy. However, they frequently produce the typical severe vaginitis, and then, they must be completely eliminated before the vagina will return to normal.

None of the numerous treatments described for this form of vaginitis have proven entirely satisfactory. Recurrences are frequent. The ideal therapy will probably not be found until the life history of the Trichomonas vaginalis is better known. However, many treatments have proven of value. The arsenicals have been found particularly useful as trichomonocidal agents. Bland and Rakoff (4) suggested the use of the pentavalent arsenic, acetarsone (stovarsol), with sodium bicarbonate added to increase its solubility. Hesseltine (5) and Karnaky (2) made use of the fact that the Trichomonas vaginalis cannot exist in an acid media. They recommended the use of lactose and dextrose to aid in the reestablishment of the normal vaginal flora of Döderlein bacilli, and to restore the vaginal acidity to a pH of 4 to 4.5. Tampons for holding medicinal agents against the cervix and vaginal walls have recently been advocated by Tritsch (6) and others.

Medicated Tampons

The above mentioned therapeutic features have been combined in a single unit, as a medicated tampon of compressed absorbent cotton, placed in a cardboard tube into which a smaller cardboard cylinder is telescoped. The smaller cylinder acts as a plunger, so that when it is pushed into the larger cylinder by the patient, the medicated tampon is expelled into the vagina. These tampons were medicated with the intention of eliminating the Trichomonads and at the same time restoring the normal vaginal flora and acidity. They were constructed in a manner to provide a dry and continuous form of therapy.

Each tampon is dusted with one and one-half grains of acetarsone (acetyl aminohydroxphenylarsonic acid).

*From the Gynecological Service of Dr. I. C. Rubin, Mt. Sinai Hospital.

In addition a tablet is affixed to its tip, consisting of: one-half grain of acetarsone (stovarsol); two grains each of dextrose, lactose, and boric acid; one-half grain of starch; one-quarter grain of sodium bicarbonate, and four-tenths grain of tartaric acid. The pH of its solution is about 3.0 (Fig. 1).

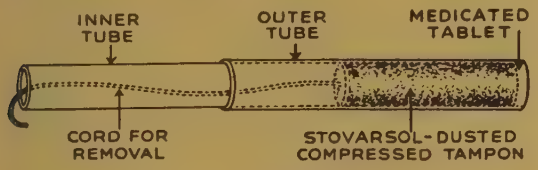

FIG. 1.—The medicated tampon.

Material

A series of fifty patients with Trichomonas vaginalis vaginitis were treated with these medicated tampons, and the results were noted. Four patients were seventeen to twenty-five years old, twenty-nine were between the ages of twenty-five and forty, twelve were forty to fifty years old, and five were between the ages of fifty and sixty. Thirty-five women were married, six were divorced, three were widowed, and six were unmarried. Nine patients were in the menopause.

These women complained of one or more of the following symptoms: urinary frequency; dyspareunia; irritation and itching of the vagina and external genitalia. The vaginal discharge was profuse, milky white or yellowish in color, frothy in appearance, and thin. The external genitalia and vagina were reddened and inflamed. Numerous red areas were present in the posterior fornix. The vaginal discharge, examined on a slide in a drop of normal saline, contained the Trichomonads, pus, red blood cells, and bacteria. The pH of the vaginal secretion, tested with nitrazine paper, ranged from 5.5 to 7.5. Few, if any Döderlein bacilli were present.

All of these patients had either been treated previously or were taking self-prescribed medicated douches.

Method

The patients did not encounter any difficulty in inserting the tampons into the vagina after they were properly instructed, under personal guidance. They were taught to grasp the large cylinder of the tampon at the junction of the small cylinder between the thumb and second finger, and to insert it into the vagina until the fingers rested firmly against the perineum. With the index finger, they then pressed the small cylinder into the large cylinder, expelling the tampon into the vagina. Both cylinders were then removed, leaving the tampon in place with the attached string protruding from the introitus to aid in its removal. When the vagina was markedly irritated and narrow, a small amount of lubricating jelly was placed on the larger cylinder to facilitate the insertion. When the vagina was unduly relaxed, a larger sized tampon was found to be more effective.

The patients were instructed to cleanse the vulva thoroughly and insert a fresh tampon each night after removing the previous one, until six were used. A cleansing water douche was advised before the fourth tampon was inserted, and after the sixth tampon was removed. The day after the last tampon was removed, the vaginal secretion was examined for Trichomonads and the pH of the vagina was taken. If the smears were positive, six similar treatments were again prescribed. If negative, a tampon was inserted every other night up to the menstrual period. During the menses a daily tampon was again inserted. If the smears were then negative all therapy was discontinued. During the following two menses, a daily tampon was prescribed as a prophylactic measure. When the menses were profuse, supplemental pads were used externally. Smears were taken after each menstrual period. If Trichomonads were present, the foregoing series of treatments were repeated. Menopause patients were treated at the same time intervals as the women with regular menstrual cycles. During the course of this form of therapy, no other therapeutic agents were allowed, except hygienic measures. In resistant cases, the patient's bladder and the husband's genitourinary tract were investigated as sources of reinfection. Coitus with Condoms was advised as a prophylaxis during active treatment.

Results

Forty-nine of the fifty patients responded to the medicated tampons promptly and in a most gratifying manner. Forty-two patients were completely relieved of the acute symptoms and the smears no longer contained Trichomonads after the first series of six tampons; the remaining seven patients required twelve treatments. The vaginal mucosa then appeared healthy, the normal flora of Döderlein bacilli returned and the pH of the vagina varied from 4 to 4.5.

To assure a more lasting cure, a tampon was then prescribed every other day up to the menses. During this and the following two menstrual periods, a daily tampon was inserted as a prophylactic procedure.

Thirty-six of the fifty patients have now remained free of the Trichomonas vaginalis vaginitis for the three to ten months that they have been observed, following only one course of treatments. Nineteen women have had no recurrence for six to ten months.

Thirteen patients required a second course of treatments, i. e., seven after the second menses and three after the third and fourth periods, respectively. They have now remained free of the Trichomonads for four to seven months.

Only one patient appeared resistant to this form of therapy. Although her symptoms were relieved, the vaginal smears remained positive during two months of treatment. This patient had a very relaxed vagina, and a larger sized tampon was obtained for her. However, she did not return and the effect of this further therapy could not be observed.

Discussion

The patients were able to insert and remove the tampons without any difficulty, and they were unaware of their presence. The tampons were not expelled during walking or exercising, and they did not interfere with urination or defecation. None of the patients were found susceptible to arsenic; there were no gastrointestinal or cutaneous disturbances.

The tampons were found to expand, distending the vaginal walls, thus bringing the acetarsone in constant contact with the mucosa. The effervescent tablet at the top of the tampon was found to quickly disintegrate,

liberating the dextrose and lactose, favoring the return of the Döderlein bacilli and the reestablishment of the normal hydrogen ion concentration.

The tampon, because of its absorbent action, not only removes pathological discharges, but also is useful as a prophylactic agent during the menses, at a time when the growth of Trichomonas would be favored by the alkaline menstrual fluid. It is necessary for the patients to use these medicated tampons during three consecutive menstrual periods, if recurrences are to be prevented.

If, as Karnaky (2) and others believe, the Trichomonas vaginalis can live in the cervical canal and emerges to reinfect the vagina, the direct application of stovarsol against the cervix may act to prevent recurrences. Moreover, the tampons do not block the flow of menstrual fluid, so that they need not be feared as a cause of endometriosis.

Summary

A medicated tampon, easily inserted and removed by the patient, has been described for the treatment of Trichomonas vaginalis vaginitis. In addition to being impregnated with an arsenical powder of trichomonicidal action, it also includes a tablet of dextrose and lactose to favor the reestablishment of the normal vaginal flora and acidity.

Fifty patients were treated with these tampons and the results observed. In all but one case, the response to treatment was prompt and the trichomonads were effectively eradicated. In the one resistant case, a pronounced relaxation of the vagina may have been responsible for the poor result, and a larger sized tampon, now available, may have proven successful.

The medicated tampons were found particularly suitable for use during the menses to prevent recurrences of Trichomonas vaginalis.

In conclusion, the medicated tampon offers a satisfactory form of dry therapy for Trichomonas vaginalis vaginitis in a single convenient unit, which can be carried out by the patient herself, under medical supervision.

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I am indebted to Dr. Andre Draghi of Allen Laboratories for his generous supplies of acetarsone dusted tampons.

PLASTIC SURGERY OF THE BREAST

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For the past fifty years surgeons both here and in Europe have been interested in devising various operations whereby pendulous and hypertrophied breasts could be restored to normal size and position without noticeable scar. Likewise, other surgeons have occupied themselves with developing techniques which would permit the removal of cysts and other nonmalignant growth from the breast without disfigurement.

I have described an original technique (1, 2) which has been found to be successful in both of these fields.

The accompanying photographs are of a woman before and after an operation, using the technique which in this case was performed to correct a moderate degree of hypertrophy.

The breasts will be seen to have been reduced to their appropriate size and normal location. The scar which is completely covered by a very low-cut costume, extends around the areola and downwards for a distance of two and a half inches to the center of the lower border of the breast.

During the past year, I have operated upon several patients in whom it was necessary to remove a considerable portion of the breast gland because of chronic cystic mastitis and associated mastodynia.

The tissue was removed in wedge-shaped masses, equal in amounts in each breast, so that there resulted two breasts of equal size and contour, although they were necessarily smaller than before. The scar was confined to the areolar border and the short line from it to the inferior mammary sulcus.

It has been found that as much as half the breast tissue may be removed without destroying the contour or creating a disfiguring scar.

In order that such an operation may be successful, certain requirements must be met. First, the entire

FIG. 1.—Left, patient before operation showing a moderate enlargement; right, the same patient one month after operation. Part of the scar below the areola can be seen.

gland must be laid bare so that remodeling of the breast-tissue can be carried out independently of that of the integument. In this way the writer's technique differs from that of Thomas (3). In his method the tissue to be excised is removed from the ventral surface of the gland without a corresponding excision of skin.

FIG. 2.—Left, patient before operation in ordinary dress; right, patient after operation in a very low draped costume. No scar visible.

Secondly, abundant training and experience on the part of the operator is essential in judging the amounts of tissue to be excised so as to yield results satisfactory from the esthetic viewpoint. The surgeon, no matter how skilled, who has not devoted considerable time and attention to this work cannot expect to obtain the degree of cosmetic perfection the average woman expects from a plastic surgical operation of this sort.

In conclusion, I have found it possible to restore enlarged breasts to their normal size and position and to carry out extensive excision of breast-tissue (non-malignant) without disfigurement by a technique which is essentially the same in both cases.

The operation requires approximately two hours to perform and hospitalization for two days is necessary The function of lactation has been found to be not interfered with (4).

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THE TREATMENT OF BACTERIAL LEUCORRHEA

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Leucorrhea, which is a symptom and not a disease, may derive its origin from within the vaginal tract or supravaginal field. Its etiological background may be one due to pelvic congestion, malnutrition or bacterial invasion. I shall confine this writing, however, to that type which originates in the vaginal region and is of bacterial nature. Scientific research and clinical investigation within recent years have favored us with considerable information concerning the relationship between vaginal acidity and bacterial invasion of this region. Among the most common organisms which find their way into this category might be mentioned the trichomona vaginalis, monilia albicans, monilia tropicalus, micrococcus catarrhalis, bacillus subacidulus, gonococcus, staphylococcus, streptococcus, bacillus diphtheriticus, and colon bacillus.

It has become a recognized and accepted fact that the normal reaction of the vaginal tract is acid with a hydrogen ion concentration of 4 to 5.5, an ideal medium for the döderlein bacillus which is a natural inhabitant of the vaginal tract in its healthy state. This organism, which serves as a protective agent against pathogenic invasion, thrives abundantly in an acid medium, and for its existence depends heavily upon the presence of glycogen, a carbohydrate which is furnished by the desquamated epithelium of the vaginal mucosa. In a diseased condition of the vaginal canal, when the reaction is invariably alkaline, the döderlein flora is practically destroyed due to the fact that it can exist and protect the vaginal tissues only when the reaction is acid. With this fact in mind it may be easily seen that in order to insure a healthy state in this region the pH concentration must lean toward the acid side and the döderlein flora must be present in its normal amount. The greater the departure from the acid side, the greater will the susceptibility to infection become. We might also accept this approach to the alkaline side as an index to the potential severity in symptoms. This fact is further substantiated by the aggravation of symptoms which the average patient complains of during the menstrual flow and the days immediately adjacent thereto.

With the pathogenicity from the chemobacterial angle thus outlined, our therapeutic aim in combatting leucorrhea must be directed toward the elevation of natural tissue resistance with a simultaneous destruction of unwelcome and symptom-producing offenders. The initial step in this scientific endeavor is the selection of a suitable germicidal agent which must embody the following factors:

1. Acid in reaction
2. High in germicidal effectiveness
3. Harmless and stimulating to vaginal tissue
4. Effective mucous solvent
5. Deodorizing properties

From the patient's viewpoint, the last mentioned factor is extremely important, inasmuch as a pleasant odor will favor its frequent employment at home, whereas a solution possessed of a medicinal odor would ordinarily have the tendency to create not only suspicion but embarrassment.

Of paramount therapeutic importance is the frequency of vaginal irrigation. Due to the fact that there is usually a marked exaggeration in severity of symptoms during the menstrual flow when the vaginal reaction is definitely alkaline, the employment of the vaginal douche during the menstrual period is by no means contraindicated. In combatting the average bacterial

leucorrhea, at least two douches a day and not more than four are deemed advisable regardless of the phase of the female cycle. Offhand, this may seem like excessive therapy. This is not the case, however, as is proved by the tremendous symptomatic relief which the patient enjoys and by the marked shortening in the clinical course of the causative factor.

Equally as important as the selection of the proper germicidal solution and the frequency of employment, is the mechanical method of irrigation. Since the vaginal axis extends upward and backward with the patient in the upright position, the ideal method of employing the douche is to have the patient lie on her back in the bathtub. This position obviously throws the vaginal axis downward and backward, thus transforming the vagina into a well or reservoir from which the solution escapes slowly and by overflow rather than by gravity. The rate of flow from the douche bag should be such that three to four minutes are required before the average amount of one quart of solution is exhausted. After the solution ceases to run from the nozzle, the patient should remain in this same position for at least five minutes in order to derive the maxium benefit from the solution which still remains in the vaginal canal.

To attain success in the treatment of bacterial leucorrheas, all contributing factors, such as pelvic congestion, malnutrition and organic lesions, must be given careful attention. As has been stated previously, leucorrhea is not a disease but a symptom. In many instances, there are other factors which serve as contributing causes, and it, therefore, becomes imperative to remove these causes before the achievement of success is hoped for. Where pelvic congestion, malnutrition and organic lesions have predisposed to the occurrence of bacterial leucorrhea, it is necessary to obviate these factors before complete success in the treatment of bacterial leucorrhea can be accomplished.

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GONORRHEA ONE HUNDRED YEARS AGO

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The amazing developments of the past few years in the treatment of gonorrhea, lend unusual interest to the subject as it was understood one hundred years ago; and makes one wonder what those of our successors living in 2041 will think of our present day concept of the disease and its treatment. A book in my possession, written by William Acton (1) and dedicated to his teacher, the great Philip Ricord, in March 1841, reveals the vast changes that have occurred since the discovery of the gonococcus by Albert Neisser in 1879, and it seems appropriate at this time to consider the views expressed in this work—presumably the last word on the subject in 1841.

After devoting twenty-four pages to the history of the venereal diseases, he comes to Ricord's work which was begun in 1830. The great Ricord divides the venereal diseases into two orders: The first "contains diseases depending upon common causes, independent of any special agent, reproducing themselves daily, and under all possible conditions; consisting of simple affections, in a word, nonvirulent. We call them syphiloid diseases." The second order "contains diseases dependent upon a special principle, distinct from all the ordinary morbific causes; affections which give rise to special effects called virulent. We call them syphilis." This order is subdivided into three stages—the primary, secondary and tertiary, which correspond in the main to our present classification of syphilis.

In the "first order", called syphiloid by M. Ricord, are included "blenorrhagia, and its consequences; excoriations, herpes, eczema and all other affections the result of sexual intercourse, not included under the second order, or virulent affections". Blenorrhagia, it appears, "has been successively known by a variety of names, all of which Acton regards as unsatisfactory. The term gonorrhea is objected to because "the discharge which attends it does not contain semen". By choosing another term, he hopes "to wean the minds of practitioners from the idea that gonorrhea, as they call it (blenorrhagia, according to my views) is always the consequence of contagion, although they are unable to distinguish it, except by the cause". *Chaude pisse,* the nonmedical French term, is objected to "because many patients, particularly females, do not complain of scalding in making water, when the affection is confined to the upper part of the vagina." Pyorrhea, is the name given by an anonymous French writer who "wishes to imply, that the affection gives rise to, or is accompanied by a discharge of pus." This is unsatisfactory because "pus alone does not constitute the affection, for I shall presently show it to consist of mucopus, and the quantity of the latter secretion will differ greatly". He considers several more names—arsura, clap, mucite, catarrhal inflammation, brenning and catarrhal primary syphilis, the last sponsored by a Mr. Wallace. This is particularly objectionable, he says, because "it brings us back to that period when gonorrhea and syphilis were supposed to arise from one and the same virus".

Blenorrhagia is favored by the author, as presenting the fewest objections; but he warns the reader that the disease does not depend "upon anything specific, or different from common inflammation; for he finds "no reason for agreeing with those authors, who seem disposed to admit a blenorrhagic virus or, in other words, to distinguish *gonorrhea* from *leucorrhea*". "In fine,"

he concludes, "blenorrhagia differs in no respect from other inflammations of mucous membranes, otherwise than in its usual situation, and in the manner in which it is contracted."

Etiology

Acton describes predisposing and exciting causes. Under the first head, age is an "important feature". Infants are found to be more predisposed to the infection than adults, "because of the delicate state of their mucous membranes", and he asks, "who that has seen the treatment of newborn children, is not acquainted with the fact that they are particularly liable to blenorrhagic affections of the eyes, glans and prepuce, from causes that would fail to give rise to the complaint in adults?"

Sex also is important; it is "an indisputable fact, that the female is more liable to discharges of a blenorrhagic character than the male". Quoting M. Ricord, "in Paris, women may be said to have habitually a discharge, call it what you will, leucorrhea, gonorrhea, *fleurs blanche*, etc.; it affects all ages and stations". And to emphasize the point, "M. Lisfranc, in his clinical lectures, is in the habit of stating that, being called one day into the country, to perform an operation on a washerwoman, he amused himself out of scientific curiosity, during the time his associates were preparing the necessary apparatus, in examining the linen of the Parisian ladies, a load having just arrived (for his patient did the washing on a large scale). He found that evident symptoms of blenorrhagic discharges were present upon nearly all. This may give the reader an idea how common the disease must be in the French capital."

Temperament also is a predisposing cause, especially the lymphatic temperament; preceding blenorrhagic affections predispose to future attacks. Locality and season, too. "In a cold, moist climate, or in damp situations, in the spring and autumn, blenorrhagic affections are more common". Finally, hygiene is considered as a predisposing cause. Light and imperfect clothing are bad, especially for females, because "whatever be their station, they will sacrifice comfort to appearance; hence the mignon shoe and the open-worked stocking are worn, in spite of the cold feet they produce." By contrast, he pointed out that the peasant girl "who protects herself from the cold by woolen petticoats and worsted stockings, is not subject to leucorrhea". The latter is an observation of M. Ricord.

The exciting causes are equally varied: Food of a stimulating and heating nature, and salt provisions, act as exciting causes. Beer is falsely accused, he believes, but concedes that "of all beverages it is the one which will the soonest bring back a discharge when taken during convalescence". Asparagus, among other articles of diet, "has a tendency to produce blenorrhagia". Certain people "cannot eat that vegetable without having a urethral discharge on the following morning". Horseback riding is an exciting cause in the female; frequent and long continued sexual indulgence or too severe continence, are likewise exciting causes, especially when predisposition exists. Masturbation and the introduction of foreign bodies into the vagina, rectum or urethra, will cause the disease. M. Ricord tells of a lady, brought into the wards of Dupuytren, complaining of great pain in the vagina. On examination they found she had inserted a large jam-pot which she was later incapable of withdrawing.

Other exciting causes are enemata, labor, inattention to cleanliness. "Women, more especially, are liable to much blame on that score", he laments; "they wash every other part of the body, but unhappily for their own comfort as well as that of their husbands, they seem to be averse to let clean water reach the vagina". Another exciting cause is menstruation, and he quotes the Mosaic law to show that intercourse during this period "was found to propagate blenorrhagic affections". Intestinal worms act as exciting causes by occasioning a sympathetic action between the rectum and vagina, or by the passage of the worms from the anus to the vulva.

After a consideration of all these causes, he concludes: "Thus, the opinion of Tod, viz., that blenorrhagia depends upon a specific virus, is no longer tenable." Poor Tod.

Contagion

The author concedes that the transfer of the "mucopus" to a healthy mucous membrane may produce a similar affection; "not however, in virtue of anything specific in the mucopus, but as a consequence of simple irritation—like any chemical irritant, in fact." Evidently Acton was a die-hard. He warns surgeons not to be too credulous, otherwise they will be deceived as to the manner in which female patients have contracted the discharge. "It is not uncommon for nurses, for example, to account for a discharge which they may be subject to, by saying they have contracted it from the child they have taken in to nurse, wishing to make you believe that it is through the milk they themselves have become affected. If, on examining such children, no disease of the mouth or genital organs is found, the surgeon may flatly contradict them, as such a means of contagion is impossible."

While blenorrhagia is considered a sporadic disease, some authors represent it as occurring epidemically. Acton tells the tale of the epidemic, reported by M. Ricord, which occurred during the building of the Church of the Magdalene, in Paris. "An epidemic existed among the masons and occurred to so great an extent that, when a mason presented himself as an outpatient, I immediately told him he worked at that building and came to consult me for a clap; and the poor fellow thought me a prophet, so sure was I to be right in my statement. This supposed epidemic simply depended on the collection of a great number of workmen together, who lived in common with a few women suffering from blenorrhagia. Such is the explanation of these socalled epidemics, and the word can not be more unfitly used as applied to such cases".

Incubation

There's quite a long discussion on the subject. The author believes, as we do today, that "blenorrhagic affections are produced soon after the causes which excite them come into action"; and he takes issue with Bell and others who "have observed cases which occur so long after connexion that they have been induced to believe in what is called *incubation*. Among others, Bell cites a case to prove his point. A person went on board a ship, where he could have no means of contracting gonorrhea (adds Bell) and on the fiftieth day

after being at sea, a discharge from the urethra appeared and continued some time. Here, then, is a case of gonorrhea which was contracted on shore and broke out at the end of fifty days; the intervening time was the period of incubation.

"Now, giving Bell all the credit for veracity, it does not seem necessary that we should come to his conclusion. Might not the man have contracted the discharge by certain malpractices? But even this was not necessary. . . . Is it not more rational, then, to suppose that these very rare and exceptional cases depend on some cause above alluded to, rather than to believe that incubation exists, or that gonorrhea may be concealed in the system, to break out when it pleases its good will and pleasure? I believe, in fine, that blenorrhagic affections are produced soon after the causes which excite them come into action. Circumstances may retard them two or three days; in this respect they resemble other diseases."

Reverting to "contagion", he says that while "it is by contagion that this disease most frequently extends itself", it must not be imagined that "it is only in such a way as this that it can be contracted. This opinion has been shown to be incorrect. It is not always enough to bring the secretion in contact with a healthy mucous membrane, in order to produce a blenorrhagic affection. There are various circumstances which must be combined, to produce the effect, although we can not always seize upon them."

With Tod insisting that gonorrhea was the result of a specific agent and Acton equally insistent on a period of incubation of several days, the soil was ready for the appearance of a Pasteur with his bacteria and a Neisser with his gonococcus. Thirty years had to elapse before they arrived and cleared the atmosphere of the fog in which Ricord and Acton and their confrères lived and worked.

Symptoms

They may be general, like those of other diseases, and local, principally heat, tension of the part and an increase of the natural secretions. The discharge changes in color from milky to a gray or green or various other shades depending on the proportion of blood mixed with it. The odor also will vary much.

Course of the Affection

Gonorrhea is either acute or chronic. It may terminate spontaneously with or without an assignable reason; this termination is called "delitescence". If the disease is cured suddenly, "a metastasis of blenorrhagia may take place, analogous to that which occurs in rheumatism". Ricord was by no means "convinced that a blenorrhagic affection is cured in one part of the body merely to break out in another". He believed that some other affection, like a fever, "may come on during or coincident with a blenorrhagia; which disease, acting on revulsive principles (as a blister or seton would) may moderate or cure the blenorrhagia". But that is not the opinion usually entertained. "Persons believe, for example, that a gonorrhea quickly suppressed by treatment will give rise to ophthalmia, swelled testicle and rheumatism". On the contrary, the author thinks it is more probable that if the concurrent disease is violent, "it will act as a revulsive; but the original complaint, instead of being cured, is only ameliorated for the time; it will return to its former severity".

Resolution is the most ordinary termination of blenorrhagia; but the author does not think "a gonorrhea should be allowed to go on unchecked, for a cure by delitescence is preferable."

Pathology

Acton bemoans the fact that there are very few specimens in the best museums of pathology which show the numerous lesions of the mucous membrane resulting from blenorrhagia. Books are equally deficient. "In books on this subject, one writer has copied another, and seems to have dissected books rather than bodies", and he asks, "how seldom do we see the urethra opened in postmortem examinations?" For this reason, he describes the pathology at length, and quotes the great Hunter's opinion "founded on the examination of the urethra of two men who were hanged while suffering under gonorrhea, that this disease is attended with no changes of the mucous membrane". Other writers, copying him, hold the same view, but, the author asks, "why should the urethra be more exempt (from changes) than other similar membranes?" The speculum has made possible the study of blenorrhagia in the female; and "from the analogy of the tissues, it might have been supposed that the same morbid appearances would be found in the male, could we observe his urethra." He then describes the reddened swollen mucosa with patches of "reddened cuticle or epithelium, surrounded by a healthy appearance of the mucous membrane". A number of illustrations show erosions and granulations and ulcerations. He has had "too many opportunities of showing their existence in England to suppose that they are confined to Paris and do not equally exist in this country (England)."

Complications

Numerous accidents arise during the course of blenorrhagia and are termed "complications". Taking them in order, "local swelling may be so great that the urine may be prevented from passing along the canal, giving rise to retention, depending upon an inflammatory stricture". Lymphatic vessels may become inflamed and buboes may result. Epididymitis is a frequent complication, rheumatism less so. "Authors generally are not agreed upon the relation between rheumatism and blenorrhagia; and having no fixed opinion, I therefore speak of it as a complication, observing, that rheumatism may come on during the time that a patient is suffering under blenorrhagia. I am, however, induced to believe that blenorrhagia is not the exciting cause, though it may be a predisposing one, of rheumatism."

Chancre is a frequent complication. It keeps up the irritation, and gives rise to a secretion, which, from its position, we can not always remove as soon as it is formed. Constitutional syphilis has been stated above to be a frequent cause. It may likewise be a complication, as will appear in subsequent chapters."

Diagnosis

Several pages are devoted to a hair-splitting discussion of the difference between pus and mucopus, their respective shades of color and their varieties of odor—all of which are important in the diagnosis; but the relevant matter is reached when the author dilates on the differential diagnosis between a mild and a viru-

lent blenorrhagia. "A very important point of diagnosis may be drawn from the existence of the complication of chancre, as it enables the surgeon to decide whether a blenorrhagia is of a virulent or a mild character. This point has been much contested; no two medical men are agreed upon the use of these terms. Supposing that a male or female is laboring under a blenorrhagia, the question to be decided is, whether it be a virulent or a mild affection. Some surgeons state that, before coming to an opinion, we must wait for the occurrence of secondary symptoms; if they appear, it is a sufficient reason to call the blenorrhagia, which has preceded, a virulent complaint. This opinion is just; but we would ask, of what use is a diagnostic sign which can be only given at so late a period, and when we have arrived at the diagnosis it is of no further use to us, as probably the blenorrhagia is cured?

"Other authors have considered the existence of buboes as the distinguishing character of the two forms of the disease; but, as will hereafter be shown, no dependence can be placed upon this sign, for any simple irritation of the foot, etc., will give rise to buboes.

"Some, again, state that a virulent blenorrhagia follows connexion with a suspicious subject; whereas a mild affection may follow connexion with a modest woman. These distinctions, founded on the consideration of the causes, can not be adopted. Is the opinion on a subject like this to be based on the supposed or presumed morality of one woman over another? Does not daily experience show (says M. Ricord) that girls of the most tender age, as well as persons holding high social positions, can and do contract virulent complaints, and may communicate these to persons who have connexion with them? Let not the fact of a disease being contracted from a more or less (apparently) virtuous woman be the means of founding a diagnosis."

There follows a long discussion in which all the prevailing concepts between "mild" and "virulent" are considered, only to be discarded and denounced as being devoid of scientific merit. The author tells of a M. Puch, one of the surgeons of the Venereal Hospital, who seemed to see the difference in their respective periods of incubation. He believed that in a mild blenorrhagia the usual period is from a few hours to as many days"; on the contrary, in a virulent affection, the interval between connexion and the first appearance of the discharge is from seven to fifteen days. That this is often the case, no one will doubt; but if relied on, it may lead to many errors in practice."

M. Ricord settled the matter to the satisfaction of the author when M. Ricord showed "that the cause of a virulent blenorrhagia depended upon the complaint being complicated with a *chancre*. In women, more especially, he found that what was called a virulent gonorrhea depended upon the existence of ulcerations, which could not be discovered by an examination of the external organs of generation, but which the use of the speculum clearly proved to exist. But did all ulcerations give rise to a virulent gonorrhea?" . . . He found that "there were various forms of ulceration, the secretion of which caused simply a mild gonorrhea. There existed others, however, which caused sometimes chancres on the glans penis and prepuce; on other occasions, virulent gonorrheas. It was only by inoculation that he was enabled to prove why sores similar in appearance gave rise to such different consequences. Inoculation soon showed him that there may exist an ulceration of a *specific* character, called *chancre;* but there likewise exist ulcerations of a *simple nature,* the result of an inflammatory state of the mucous membrane, which were frequently the consequences of a blenorrhagia. From this moment, that which was previously doubtful became clear." Chance put Ricord "in possession of two cases, which he showed to the Academy of Medicine, in which chancres existed in the whole course of the urethra. . . . He concluded that the only diagnosis between virulent and mild blenorrhagia is derived from inoculation." The secretion of a simple mild blenorrhagia, when inoculated under the skin, produces only a slight irritation, which subsides in a few hours; whereas, if the complaint is virulent, inoculation will produce a vesicle, pustule and chancre. "This, then, I call the certain *pathognomic* diagnosis of a virulent blenorrhagia." Apparently what we today term gonorrhea and nonspecific urethritis were classified as mild blenorrhagia; what we call syphilis was "virulent". Everything in genital and sexual pathology, in both sexes, seems to have been included in the single term "blenorrhagia".

Prognosis

This depends on the location of the affection. "When the conjunctiva or urethra is affected, a cure will not so readily ensue as when the prepuce or glans penis is attacked. . . . If the blenorrhagia has existed but a short time, the cure will probably be speedy, and the more amenable will it be to plans of treatment, and *vice versa.* An acute attack of the disease will be cured easier and more speedily under treatment than the chronic form." Complications will modify the prognosis. "On this point I shall not insist, reminding my reader only that improper hygiene and treatment are very liable to produce them, especially the formation of abscesses along or around the parts affected." M. Ricord insists that "no ill consequences are to be feared from any treatment, provided it is not grossly improper. If I were disposed to be aphoristic, I might say that the ill consequences will be few, in proportion as the cure is speedy; and I defy any one to produce a case cured in twenty-four hours from its commencement, which has been followed by any ill consequences." And we think we're doing wonders with the sulfonamides!

Contagion is not to be feared when the secretion is reduced to a thready mucus, which is transparent like vermicelli. On the contrary, as long as the secretion is purulent, whatever the duration of the disease, "it is capable of causing a similar complaint in any mucous membrane with which it comes in contact."

Treatment

"When humorism was in vogue, the discharge was supposed to consist of pus; and as it was thought to chase the bad humors from the body, care was taken not to check the discharge—the supposed outlet of various disorders. When we consider that medicine was but little advanced at this period, we are not surprised that this doctrine should have kept its ground for a long time; but is it not astonishing that these prejudices are still entertained by many enlightened men, although they reject the ancient doctrines of the humoral theory? It is lamentable to find that many of

the practitioners of the nineteenth century are not more advanced than were those of the fifteenth century and obstinately resist any line of treatment which has for its object the cutting short a disease, for fear of consequences which they can not describe. M. Ricord says: 'I allow a discharge to continue no longer than I can help. It is never my intention to prolong the discharge; if it continue, it is in spite of my treatment, which has been ineffectual in checking it'."

"Notwithstanding the distinctions which modern practitioners have introduced, and although it is generally believed that the two affections differ *in toto* (what we today call gonorrhea and syphilis, A.L.W.), still at the present day many surgeons prescribe a course of mercury either during or after a blenorrhagia". This practice is condemned. He tells of an ostler who "suffered with clap". A quack gave him mercury pills. "His mouth got sore and his clap got worse." Under proper treatment he recovered.

Tod and his school eulogize diuretics, but Ricord found "no other effects result from this treatment except that of causing an acute attack of blenorrhagia to pass to a chronic one, which is by no means desirable." Bell seems to have been the first to recommend direct or local treatment, but this has its disadvantages and is not altogether approved.

Treatment is classified as prophylactic, abortive and curative. Briefly stated, prophylactic treatment consists in avoiding contact with the causes that give rise to the affection; ninety-nine and a half women in every hundred, during some part of the month, suffer more or less from blenorrhagia, therefore, the "safe period" must be found and utilized. To make doubly sure, the condom is recommended. "This practice," says M. Ricord, "is not sanctioned, it is true, by nature, yet Astruc has long since recommended it, and in practice there are many cases in which the surgeon is forced to prescribe connexion once or twice a week, as he would do aperient pills. Although, therefore, a practice not to be lightly sanctioned, I must recommend it in some cases, for without it the mucous membrane of the urethra would infallibly inflame."

The abortive treatment is intended to check the affection at the onset, and it is done by general and local means. Rest, quiet and hygienic measures are the general means; the internal measures consist of copious doses of cubebs, copaiba and turpentine, at short intervals. "Various powerful quack medicines owe their efficacy as anti-blenorrhagics to these remedies". They must not be discontinued too quickly, but the dose should be gradually diminished. "By such means the cure will be found to be permanent."

Externally, "the Russian or vapor bath, which acts by determining to the skin, will completely cure a patient in a very short time. Blisters have likewise been employed with the same view, but, generally speaking, they are prejudicial."

As direct or local treatment, compression has been recommended, but it is opposed because "it produces erections by day and pollutions at night, which again occasion congestions, the forerunners of inflammation". Separation of the mucous surfaces with a piece of lint is very useful, because "one diseased mucous surface reacts on the other, and augments the mischief". Cleanliness is important; but the greatest dependence is placed upon injections of various astringents or tonic substances. All of this is abortive; these measures should be stopped when the symptoms become more acute or when the affection has lasted some time. Then the curative measures are recommended, which again consist of cubebs, copaiba and turpentine, but with the addition of leeches and copious and frequent baths. "Local bathing is prejudicial, as tending to cause congestion of the part." Diluent drinks are good, but no diaphoretics. No beer or asparagus.

In the chronic form the general treatment "consists in the employment of copaiba, cubebs, turpentine, purgatives, diuretics, astringents, tonics, iodine, and cutaneous revulsives", arranged in the order of their efficacy. Nearly four pages are devoted to a detailed description of the respective efficacy of copaiba and cubebs, with the preference given to the former.

After devoting sixty pages to this discussion of blenorrhagia in general, the author now takes up "blenorrhagia in the male", of which there are two forms—balanitis and gonorrhea. Simple balanitis is described very much as we know it today; but "a very frequent complication is chancre"; secondary symptoms also may become a complication. "Hence we have what is called improperly, *a syphilitic balanitis,* not in virtue of any specific poison, but as a consequence of the secretion, which is very acrid". M. Cullerier, who supposes that a simple gonorrhea may give rise to secondary symptoms, says he has never seen a case of balanitis which he could trace as the cause of constitutional syphilis. On the other hand, M. Puch considers "that simple balanitis may produce a chancre, and thus give rise to secondary symptoms". The diagnosis of balanitis "is easy, provided the surgeon can uncover the glans and see in what state it is". For the positive diagnosis, one means is within our reach—it is that of inoculation."

Treatment in uncomplicated cases of balanitis consists in washing the parts and separating the prepuce from the glans by means of a piece of lint; "this alone will usually suffice to cure the patient". This simple treatment, in the hands of M. Ricord, has cured patients in a few days after other practitioners had been treating them for six months without benefit. In cases of "phymosis", M. Ricord does not like to slit up the prepuce. His plan is "to wipe away all the secretion, and introduce a stick of nitrate of silver between the glans and the prepuce, and cauterize slightly the parts. The immediate consequence is considerable augmentation of pain which may last for half an hour, but on the following day the amendment is very marked." Other remedies are mentioned, but cauterization is the best.

The author next takes up "gonorrhea", though one wonders what he has been considering all this time. In England the disease is known as clap; in France, *chaude pisse*. As to causes: "The unnatural size of the male organ, as well as a large meatus, tend to augment the chances of contracting a gonorrhea. A relative disproportion between the genital organ of the male and the female will be a very frequent cause of the development of gonorrhea". The direct causes are those described under the general head of blenorrhagia. Any part of the urethra may be involved, but the fossa navicularis most frequently. The symptoms are pain "which is sometimes slight and of an agreeable kind" and a mucopurulent discharge. With this combination

present gonorrhea may be inferred. Bell has "distinguished gonorrhea of the bulb, prostate, neck of the bladder, and bladder itself. Instead of admitting these distinctions, I shall consider them only as signs that the gonorrhea has reached certain portions of the canal."

"Every tyro in medicine will at once distinguish what he calls a clap, by means of the symptoms above described," but when there is no visible discharge at the time of examination and no stains on the linen, the diagnosis is not so simple. Complications are numerous, the most common being small abscesses in the fossa navicularis and inflammation of the prostate. Swelled testicle and buboes also occur. "Chancre may likewise occur in any part of the urethra, giving rise to what the French call a *chancre larvé*". The manner in which the virus is introduced into the urethra is "similar to that described under the head of Introduction to Gonorrheal Matter, with which it is often combined."

The chronic stage is characterized "by a diminution of the scalding in making water. The discharge, which was previously purulent, becomes mucous, though it continues abundant. In other cases, no running is observed during the day, but in the morning the lips of the meatus are found glued together." Impotence is sometimes a symptom. It is due to the "absence of erections, yet pollutions occur. Impotence in the acute stage is due to a swelling of the canal of the urethra, which prevents emission, although erections occur. Impotence also may depend on moral causes; and I believe that such is the case in nine out of every ten cases."

Treatment of gonorrhea is similar to that of blenorrhagia—abortive and curative and the measures are the same. The abortive treatment is supplemented by the addition of twelve injections of silver nitrate during the first forty-eight hours, at regular intervals; the strength of the solution is 1-2000 of distilled water. The injections are then stopped and cubebs or copaiba given in the doses already mentioned. "At the end of fifteen days the surgeon may allow his patient to resume his usual habits."

The author warns against the use of a pewter syringe, as the metal decomposes the salt and renders it less efficacious. "A slightly purulent rosy discharge (after the injection, W.) is a very favorable sign, as it shows that the disease will rapidly yield." Stricture is not caused by the injections; but by the organic changes induced by the long duration of a chronic inflammation.

Treatment of gonorrhea "must be guided by general principles" and consist in a severe antiphlogistic regimen. The most effectual practice is to apply twenty-five leeches to the perineum; the daily use of a warm bath; diuretics and large quantities of mucilaginous drinks; and the use of a suspensory bandage. Camphor for the chordee. It also helps for the patient to "put his feet on the cold floor".

Retention of urine is usually relieved by the antiphlogistic measures recommended; in extreme cases, the catheter must be employed and tied in and left in the bladder if an obstacle to its passage has been encountered and overcome. Abscesses must be opened immediately; hemorrhage from the urethra is treated by rest, mucilaginous drinks, and iced drinks; best of all is "a cold lavement, and a horizontal posture upon a straw mattress"; if these do not help, pressure against the perineum or on the urethra.

Inflammation of the neck of the bladder (Bell's fourth phase of gonorrhea) is treaed by antiphlogistic means together with enemata composed of four ounces of infusion of poppies with twenty drops of laudanum. If chancre of the urethra accompanies the gonorrhea, "it will in no way modify the treatment of acute gonorrhea; when that is passed, it must be treated as chancres usually are". Buboes disappear very readily under the use of leeches and poultices.

A special chapter is devoted to epididymitis. As one of the predisposing causes, the author mentions "an habitual flaccid condition of the scrotum; for it is a point on which any one can convince himself that a strong cremaster and firm scrotum are rarely met with in individuals suffering from this affection. This is corroborated by the fact that the left testis is more frequently affected by the disease than the right, which is sustained by the seam of the trousers affording it an adventitious support." Wet, damp weather is also a predisposing cause.

Diagnosis

The reader is referred to text books on surgery for the "diagnosis between this affection and all those diseases with which it may be confounded".

Treatment is antiphlogistic. Leeches should not be applied on the scrotum, but on the groin or perineum; abstraction of blood from the arm; if leeches are not available, the scrotal veins may be punctured and blood withdrawn; cold washes or warm poultices are useful; in 24 hours the acute symptoms will usually have passed away and compression is in order, by means of strips of adhesive plaster. The author has seen cases cured in twelve hours by these means.

Over thirty pages are devoted to stricture and six pages to false passages resulting from the passage of instruments for dilatation. In the main the treatment of stricture today and in 1841 is practically the same.

Conclusion

In conclusion, it may be said that a vast change in our conception of gonorrhea has occurred since this book was written, due, of course, to Neisser's discovery of the gonococcus. Groping in the dark, yet so near the light, Ricord and the men of his day did remarkably well. Lest we of today boast of our accomplishments, we must not forget that sixty years passed before the silver protein salts were developed and almost forty years more before the advent of the sulfonamides. And there's still room for considerable progress.

Reference

1. Acton, William: *A complete practical treatise on venereal diseases and their immediate and remote consequences.* First American Edition. Paris, March, 1841.

Postpartum Lactation

A. M. Hellman and L. F. Ciner, New York, in an article on the inhibiting action of Testosterone propionate in postpartum lactation (*New York State J. Med.* 41:30 (Jan. 1) 1941) state that the male sex hormone, testosterone propionate, was employed to suppress postpartum lactation in a selected but representative group of seventy-seven mothers. Breast symptoms, both subjective and objective (if slight complaints are ignored), were prevented in a large percentage of patients where the administration of testosterone was begun early and was employed as a prophylactic measure. A high percentage of patients already lactating responded promptly to the application of testosterone.

114 East Sixty-first Street

Paradoxical Hormone Therapy in Gynecology

By paradoxical hormone therapy is meant the use of the male hormone in women. W. Reifferscheid (*Zentralbl. f. Gynäk.* 65:420 (March) 1941) says it is considered that testosterone checks the "glandotropic" function of the anterior pituitary lobe and, therefore, is useful in treating conditions in the female organism which depend on hyperfunction of the follicular hormone. The following indications are mentioned:

1. Metropathia hemorrhagica (excessive irregular bleeding); twelve cases. The patients were given twenty-five mg. testosterone propionate twice in each cycle; in eleven cases good results were obtained.

2. Menorrhagia in the presence of uterine myomata (fibroids); nine cases. The dose ranged between fifty and one hundred and fifty mg. per month. Duration of treatment, from sixteen to twenty-four weeks. In eight of nine patients, the myomata decreased in size, in some instances remarkably so, and at the same time menstrual bleeding was decreased.

3. Menorrhagia (regular excessive bleeding); nineteen cases. The dose of twenty to fifty mg. per month. In eighteen cases the quantity and duration of bleeding was reduced to normal.

4. Endometriosis. Tests which were initiated in this condition produced encouraging results.

5. Menopausal symptoms. Testosterone propionate has been found useful in those cases in which estrogens cause excessive bleeding. In six patients with marked symptoms, doses of twenty-five mg. once or twice a month continued for from three to four months, caused the symptoms to disappear. This effect persisted for from six months to a year. Testosterone propionate may be used without hesitation in young women because the effects on the ovary are reversible.

Ovarian Failure

E. C. Hamblen, of Durham, N. C., in discussing the diagnosis and treatment of ovarian failure during the reproductive period (*Mississippi Doctor* 19:1 (June) 1941), says the three common symptoms of ovarian failure are: failure of occurrence or cessation of menstruation, sterility, and absence of sexual maturation. The majority of women go through the climacteric without experiencing any symptoms which interfere with the daily routine of their lives. Corpus luteum failure is diagnosed by simple endometrial biopsy. If this shows the endometrium to be in estrogenic phase rather than progestional we have evidence that ovulation and corpus luteum proliferation have failed. Normal women may have two to five anovulatory cycles a year. Quantitative determinations of pregnandiol are an aid to diagnosis but are time-consuming and expensive. Minor menstrual irregularities are often normal for the individual. Amenorrhea of more than several months duration, in the absence of pregnancy, is significant of ovarian functional impairment.

Extra-endocrine causes of ovarian failure include acute and chronic debilitating diseases, inanition and vitamin deficiencies, emotional and psychic crises, and changes in altitude and climate. Endocrine causes may be classified as intrinsic ovarian failure, ovarian failure due to hypofunction of the pituitary, ovarian failure due to pituitary alterations induced by disturbances of other glands as thyroid and adrenal, ovarian failure due to diabetes mellitus, ovarian failure due to altered metabolism resulting from disturbances in thyroid or adrenal, ovarian failure due to gametopathic factors, and ovarian failure due to endometriopathic factors. Hysterectomy, even when ovaries are conserved, induces ovarian failure of the last classification. Cures of many types of ovarian failure result from necessary treatment of constitutional diseases. Treatment of irregular bleeding for the sole purpose of regulation of the cycle is, however, meddlesome and often harmful. Only when undesired sterility is related to these irregularities or when there is depleting hemorrhage is therapy justified. In case of excessive blood loss, with no concern for sterility, intrauterine radium is the therapy of choice.

In pituitary failure, since there is no adequately potent gonadotropic extract of pituitary origin available, equine gonadotropin is the product of choice. Intramuscular injections of four hundred to eight hundred international units are given every other day for six weeks. Oversensitive ovaries respond to this therapy rapidly and become cystic. Treatment should be intermitted and resumed at a lower level. Gonadotropic therapy should not exceed six weeks to avoid antibody formation. A rest period of six weeks is advised. Two to six weeks' courses without result should be followed by ovarian substitutional therapy. Such replacement therapy yields only temporary results. Such replacement therapy may effect epiphyseal closure if this has not occurred, curbing overgrowth of the extremities, and may alter response to gonadotropic therapy by inducing genital growth. In case of such growth by estrogens several additional trials of gonadotropic therapy should be made. Estradiol benzoate six thousand to fifteen thousand rat units every two to three days is the suggested dose. If hypomastia is the primary concern an ointment of estradiol benzoate, 0.5 mg. to 4 Gm., is employed locally. Cyclic employment of estrogens and progesterone is valuable in certain patients. Every climacteric woman with uterine bleeding should be assumed to have carcinoma until its existence has been ruled out by diagnostic curettage.

Female Endocrinology

E. Shorr, in New York, in discussing recent advances in female endocrinology, (*New England J. Med.* 224: 434 (March 6) 1941) states that the first half of the menstrual cycle can be produced by estrogen substitution therapy, but progestin is necessary to complete the second half. The combination of these two hormones in castrates results in vaginal smears similar to the normal. Vaginal smears are useful, therefore, in determining the extent of replacement therapy with estrogens and in controlling treatment of the menopause and of amenorrhea. Using this method to evaluate the efficacy of various estrogenic hormones, it has been determined that it takes two to three thousand rat units per day to cause full estrus in a human being, and that all preparations given parenterally in this dosage are equally effective. Orally, about six times the parenteral dose is necessary to produce full estrus. It was further determined that estradiol is more potent by mouth than estrone which in turn is more potent than estriol. The parenteral route is the most economical. Wide spacing of dosage is wasteful.

FLYING FITNESS—WHAT IT TAKES

JOSEPH G. LEE
Tucson, Ariz.

The tocsin to arms tolls. America's youth looks skyward. From their ranks are selected the future knights of the air. Pilots, by and large, are magnificent human material. They are expert, daring and must possess the highest possible morale if they are to invade the realm of the eagle.

The examinations of candidates for military aviation are now the most exacting in any branch of the army or navy service. The reasons for the high physical standards are obvious because military, high speed planes and aerial warfare have imposed serious, new problems on the health of fighter pilots.

The stress of military flying is so severe that only boys and young men can pass the physical standards. In quick turns, dives and battle maneuvers, at breakneck speed which are necessary in these ultramodern fighter craft, older men blackout . . . that is, lose consciousness for several seconds more than younger men. It is a simple question of heart and lungs and physical stamina.

The flying fitness tests for military pilots are now well standardized. The candidate arriving for examination is first given a day's rest so that he can present himself at the peak of physical fitness. A general physical survey and medical history is first taken. It includes an inquiry into current infections, recent illness and operations. The applicant must come within sixteen pounds of normal weight for his age and height, he must not weigh over two hundred pounds, and he should not be more than seventy-four inches, nor less than sixty-four inches tall.

If the candidate passes the general survey he next undergoes special examinations by the flight surgeon. First, he receives the usual tests for nearsightedness, farsightedness, and astigmatism. Passing these, he is tested for the eye's ability to appreciate form. This is done with the Snellen test letters which one sees in every doctor's office. If the applicant can read the next to the bottom line of letters at twenty feet, his vision is rated 20/20. If he reads the last line his vision is 20/15, which is the usual observation.

The depth perception test, or the ability to determine the third dimension, follows. A lighted box, casting no shadows on the inside, is set twenty feet in front of the candidate. There are two upright, black rods in the box, one of them movable, and cords are attached to them. The pilot must line up the rods by tugging at one of the cords. If he sets them up within one inch of each other in a series of five trials, he passes. This test has been found of practical importance in the judgment of distance in landing.

The eyes are next tested for muscle imbalance. The phorometer and Maddox rods are used for tests of muscle imbalance. This is done by lining up streaks and spots of light, with the examiner noting any deviation from normal. It is followed by the tangent curtain and nystagmus tests that determine whether the muscles which move the eyeballs are normal. If the muscles are either under or overactive the candidate is rejected. The eyes are tested for color blindness with color plates and colored bits of yarn. There is a question now whether this test is really very essential.

The test for night blindness follows. A deficiency of vitamin A, or a faulty diet, may be responsible.

The candidate stares at a special light for three minutes to bleach or dazzle his eyes. The exhaustion of the retina causes inability to see clearly at night, and the applicant's ability to recuperate this loss determines his fitness. Many motorists, who drive at night, are familiar with this visual disturbance.

After the "bleaching" all lights save one of low luminosity are extinguished. The examinee then watches for the time when he can first perceive it. He passes the test if he can describe the light correctly within three minutes.

The pilot's heart and circulatory system must be in excellent condition. He is given an intensive cardiovascular examination, including the electrocardiogram, blood count, and hemoglobin estimation.

The ear, nose and throat examination is particularly exacting, for the pilot must breathe readily in rarefied air or from oxygen tanks; he must recognize the cryptic signals on his radio despite interference, and the mechanism governing equilibrium is located within the ear. At first, prospective pilots were whirled around on a stool for the equilibrium test, and if they became intensely dizzy and sick they were rejected. Now it is known that this is a normal reaction. However, airsickness, like seasickness, may be more readily induced by a faulty balancing apparatus located in the middle ear. Disturbances of the ear are amongst the most trying problems of aviation medicine.

The external ear, eustachian tubes, and ear drums are carefully examined and hearing is tested. If the applicant can hear the whispered voice at twenty feet, he is rated as having 20/20, or normal hearing. The reason a pilot shouts as he descends in a power dive is to equalize the terrific pressure against the ear drums to prevent them from rupturing.

There are two equilibrium tests, one which the reader can try. The candidate stands on one foot, closes his eyes, and attempts to remain balanced for fifteen seconds. He may aid his balance by moving his arms or his raised foot. He will be found "steady" when he does not move appreciably, "unsteady" when he has difficulty in keeping his balance, and "failed" when he is unable to maintain his balance for fifteen seconds in one of three trials for each foot.

The applicant is next given the Bárány chair test. If he has a history of train sickness, seasickness, swing sickness, or airsickness, such weakness may be detected. But there are other factors that may operate to cause these disturbances.

The Bárány chair has a head rest which brings the candidate's head forward to thirty or forty degrees. He sits in the chair with his head on the rest and closes his eyes. He is turned to the right and asked for his sensations. If normal he will reply that he is turning left. The test is used to convince young pilots they can't rely on their equilibrium sensations in flight.

Then the chair is turned ten times in exactly twenty seconds, a stop watch is clicked, and the examinee looks straight ahead at some distant point. If horizontal oscillation of the eyeballs (nystagmus) continues for twenty-six seconds, the candidate is normal. He is then spun in the opposite direction, nystagmus is again noted, and pulse and blood pressure are taken. If the time of the nystagmus varies more than five seconds between the two directions, the applicant is disqualified. The equilibrium tests are important, since they tend to determine the candidate's inherent ability to "keep his head" in the air.

Pilots must have good ventilation at all times and the nose, throat and lungs are carefully examined. Any acute or chronic defect of the nasal passages will disqualify. The lung capacity is tested by exhaling air into a spirometer after the deepest possible inspiration.

The pilot should be thoroughly sound physically and mentally because of the strain of flying and the unusual pressures and stresses he endures. Fighter pilots, for instance, are subject to "bends" . . . that painful and crippling malady similar to deep sea divers and others who work under sudden, profound changes in atmospheric pressure. A modern, fighter plane can carry a pilot several thousand feet high in a minute. Because of this rapid ascent, from sea level to high altitudes, the pilot undergoes sudden extreme changes in pressure, such as a diver encounters when he ascends from great depths rapidly to the surface.

Fatigue incident to the stress of military combat is still another problem. The combination of nerve strain, fatigue and fear of an aerial combat may result in a crack-up when the exhausted pilot returns to the field in an otherwise uninjured condition.

Ideal pilot material would be a man between twenty-one and twenty-five years, with good eyes needing no correction; little history, if any, of nose, throat, or eustachian tube infection; good heredity, and plenty of physical stamina. The man need not be tall; rather, he should be wiry and possess a great deal of endurance. He must be able to preserve intelligence under trying conditions; he should have quick instinctive reactions and be a good judge of distance. He must be sound physically and mentally in every respect.

As a sage once said: "As our thoughts are, so are we." Flying is an expression of thought. It is a thrill, indeed, to watch with pride in your heart the finished pilot, poised beside his trim, fighter plane—sleek and with the cold beauty of a barracuda. The pilot's thoughts fly upward. This knight of the air is a symbol of the everlasting appeal to the red-blooded and adventurous spirit of mankind.

News Items

Symposium on Bronchial Adenoma.—At a meeting of the New York Society for Thoracic Surgery, held at the New York Academy of Medicine on Friday evening, February 13th, the program consisted of a symposium on bronchial adenoma, as follows: Clinical aspects, by Dr. H. McLeod Riggins; pathology, by Dr. N. Chandler Foot; bronchoscopic aspects, by Dr. John D. Kernan; surgical treatment, by Dr. C. Eggers.

Friday Afternoon Lectures.—The thirteenth lecture of the series will be given on February 27th, at the New York Academy of Medicine, by Dr. R. Franklin Carter. His subject will be Modern methods of diagnosis in disorders of the gallbladder.

Lectures to the Laity.—Dr. Arnold Gesell, director of the Clinic of Child Development, Yale University, School of Medicine, will deliver the fourth lecture of the series on Thursday evening, February 26th, at the New York Academy of Medicine. His subject will be Creative behavior in child and adult.

Harvey Lecture.—Dr. Roger Adams, professor of chemistry, University of Illinois, will deliver the fifth Harvey lecture at the New York Academy of Medicine on Thursday evening, February 19th. His subject will be Marijuana. This lecture takes the place of the second stated meeting of the Academy for February.

Discussions on Emergency First Aid.—At a meeting held on February 4th at the International Medical Center, Dr. A. L. Soresi read a paper on First aid and emergencies, dealing specifically with the treatment of fractures. On February 11th, Dr. Soresi discussed Emergency first aid in abdominal injuries.

Ambulatory Schizophrenia.—At a meeting of the New York Society for Clinical Psychiatry, held at the New York Post-Graduate Medical School and Hospital, on February 12th, the subject discussed was ambulatory schizophrenia. Patients were presented by Dr. Sidney Klein, Dr. William Leavitt, and Dr. Geoffrey C. H. Burns.

Clinical Society of Reconstruction Hospital.—A stated meeting of the Clinical Society of the Reconstruction Hospital, a unit of the New York Post-Graduate Medical School and Hospital, will be held on Wednesday evening, February 18th. There will be an executive session, followed by the presentation of cases as follows: Fracture of tibia and fibula in a woman of eighty-two, by Dr. George A. Glass; Fracture of fibula, lower one-third, with foot drop, by Dr. George A. Glass; Compound fracture of tibia (gunshot), by Dr. John J. Moorhead; Bilateral fractures of tibia and fibula, by Dr. John J. Moorhead; Compound comminuted fracture of tibia and fibula, by Dr. Walter D. Ludlum, Jr.; Spiral fracture of tibia and fibula, by Dr. Walter D. Ludlum, Jr. The paper of the evening will be read by Dr. Walter D. Ludlum, Jr. His subject will be Treatment of fracture of tibia and fibula.

Dr. Bainbridge Returns from South American Tour.—Dr. William Seaman Bainbridge has returned to the United States after touring Central and South American Republics and important islands of the Caribbean on a mission for the U. S. Government. He is resuming his practice in New York until such time as he may be called to further duty as a member of the Naval Reserve. While on his tour, as official duties permitted, he lectured before cancer centers, faculties of medicine, the Assembly of the International College of Surgeons, and also addressed Rotary and other clubs. He inspected many hospitals, consulted with the surgeon generals of all the countries visited, had interviews with the presidents of a number of the countries and with many ambassadors and ministers. He was elected an honorary member of the National Academy of Medicine of Venezuela, the National Academy of Medicine of Mexico, and the Academy of Surgery of Peru.

Personal.—Dr. Norris C. Elvin, Brooklyn, N. Y., has been appointed assistant visiting ophthalmologist at Coney Island Hospital.

Dr. John Milne Murray, of Boston, delivered an address on Instinctual Conflicts and Therapeutic Response, at a meeting of the Washington-Baltimore Psychoanalytic Society, held in Washington, D. C., on February 14th.

Dr. Cornelius P. Rhoads delivered the annual B. A. Thomas oration for 1942 before the Philadelphia Urological Society, on Monday, January 26th. His subject was Genesis of Tumors.

Dr. Frank F. Tallman, clinical director of the Rockland State Hospital, Orangeburg, N. Y., has been appointed director of mental hygiene of the Michigan State Hospital Commission, Lansing.

Dr. Isidor S. Ravdin, George Leib Harrison professor of surgery, University of Pennsylvania School of Medicine, and director of the Harrison Department of Surgical Research at the Medical School, Philadelphia, will deliver the eighteenth Lewis Linn McArthur Lecture of the Frank Billings Foundation of the Institute of Medicine of Chicago, on March 27th. His subject will be a Consideration of some problems of biliary tract disease.

Dr. John H. Musser, professor of medicine, Tulane University of Louisiana School of Medicine, New Orleans, has resigned as president of the state board of health. He will be succeeded by Dr. Christopher L. Mengis, of New Iberia.

Dr. Harold J. Gordon, Akron, Ohio, has been appointed venereal disease control officer of the state department of health.

Dr. William Seaman Bainbridge, Captain, Naval Medical Reserve, delivered an address at the meeting of the Metropolitan New York Chapter of the Association of Military Surgeons, on February 12th. His subject was Some Glimpses Below the Rio Grande.

Dr. Anthony C. Cipollaro, of New York, delivered a lecture on Cutaneous manifestations of tuberculosis, at a meeting of the Montgomery County Medical Society, held at Amsterdam, N. Y., on February 10th.

Dr. Ralph F. Bowers, of New York, delivered an address before the Society of University Surgeons, at a meeting held in Cincinnati, on February 12th. His subject was Treatment of carcinoma of the stomach in the aged individual.

Dr. Marion B. Sulzberger was the guest speaker of the Medical Society of Milwaukee County, Wisconsin, on February 13th. The subject of his address was Hypersensitivity to Drugs.

Dr. Paul J. Flagg, of New York, delivered an address on Coordination of gas therapy with special reference to asphyxial accidents, and a consideration of gases used in warfare, at a meeting of the Society of Medical Jurisprudence, held at the New York Academy of Medicine, on Monday evening, February 9th.

Colonel Curtis Glaasen, Medical Corps, U. S. Army, delivered a lecture on Defense against chemical warfare and the treatment of gas casualties, at Mt. Sinai Hospital, New York, on February 10th.

Dr. George W. Thorn, associate professor of medicine, Johns Hopkins University, Baltimore, Md., delivered an address on Studies on Steroids of Adrenal Cortical Origin, at a meeting of the Academy of Pathological Science, held in New York on January 23d.

New York Surgical Society.—At a stated meeting of the New York Surgical Society held at the New York Academy of Medicine, on Wednesday evening, January 28th, the following program was presented: The presentation of cases of Gastrojejunocolic fistula and Pfeiffer colostomy with resection, by Dr. John J. Westermann; cases of Terminal ileitis and multiple operations and Chronic high intestinal obstruction due to adhesions following gastroenterostomy, by Dr. Frank L. Meleney. The papers of the evening were read by Dr. Sigmund Mage on Recurrent ulceration following subtotal gastrectomy of the Billroth II-type, in the treatment of gastroduodenal ulcer, and by Dr. Robert S. Grinnell on The lymphatic and venous spread of carcinoma of the rectum. A joint meeting of the society with the Philadelphia Academy of Surgery was held in Philadelphia on February 11th.

Staff Changes at Tennessee University.—At the School of Biological Sciences of the University of Tennessee, Memphis, Dr. Kendall B. Corbin, head of the department of microscopic anatomy, succeeds the late Dr. August H. Wittenborg as chief of the division of anatomy, according to *Science*. Dr. Corbin continues as professor of microscopic anatomy. Dr. Arthur P. Richardson, assistant professor of pharmacology at Stanford University, has been appointed associate professor of pharmacology and head of the department of pharmacology. Dr. Samuel B. Barker, research fellow in medicine at Cornell University Medical College, has been appointed instructor in the department of physiology.

Staff Appointments at the Hospital for Joint Diseases.—The following staff appointments at the Hospital for Joint Diseases have been announced: Dr. Mervin C. Myerson, attending otolaryngologist; Dr. William J. Hochbaum and Dr. Louis Kleinfeld, associate otolaryngologists; Dr. Leopold Glushak, attending in plastic surgery of the head and neck; Dr. Morris Dinnerstein and Dr. Martin G. Vorhaus, attending physicians in internal medicine; Dr. J. J. Wiener, attending physician in chest diseases; Dr. Harry Gold, attending cardiologist; Dr. Milton L. Kramer and Dr. Nathaniel Uhr, associate physicians; Dr. Michael S. Burman and Dr. Joseph G. Wishner, associate orthopedic surgeons.

Supper Dance to Aid American Hospital in Britain.—The Physicians' Committee of Greater New York will hold a supper-dance at Sherry's on Washington's Birthday Eve, February 21st, to raise funds to help maintain the American Hospital in Britain, which is entirely staffed by American doctors, nurses and technicians, and all of whose equipment is American-made. This Committee heretofore has raised a considerable sum to aid many of the voluntary hospitals bombed in Britain. They have also sent grants of money to homes for bomb-shocked children, orphanages and St. Dunstan's for the Blind.

Dr. Adolph G. DeSanctis is chairman of the Committee, Dr. B. Wallace Hamilton is secretary, Dr. Kirby Dwight is treasurer, and Drs. Charles Gordon Heyd, Nathan B. Van Etten, John E. Jannings, H. P. Mencken and Herbert A. Cochrane are vice-chairmen of the five boroughs of Greater New York. Tickets may be purchased and tables reserved at the Medical Aid Department, British War Relief Society, Inc., 730 Fifth Avenue, New York.

New York Society of Tropical Medicine.—A joint meeting of the Section of Medicine of the New York Academy of Medicine and the New York Society of Tropical Medicine was held on Tuesday evening, February 17th. The following papers were presented: Florence Nightingale and tropical and military medicine, by Dr. Thomas T. Mackie, visiting physician, Roosevelt Hospital; Tropical medicine in United States military history, by Dr. Henry E. Meleny, Hermann M. Biggs Professor of Preventive Medicine, New York University; Typhus fever, by Dr. John C. Snyder, Rockefeller Institute. An executive session will follow.

Course in Endocrinology at the University of Chicago.—This course has been materially strengthened by the volunteer efforts of certain members of the staffs of other departments, because of the special first hand research knowledge in particular fields. Among those who will participate in this effort are the following: Emeritus Professor Dr. F. C. Koch, former chairman of the Department of Biochemistry; Dr. Carl Moore, chairman of the Department of Zoology; Dr. George W. Bartelmez, Department of Anatomy; Dr. Allan T. Kenyon, of the Department of Medicine; Dr. Samuel Soskin, Dr. Franklin C. McLean, Dr. Arno B. Luckhardt, Dr. Victor Johnson, Dr. J. P. Mullin and Dr. Howard Mauthe, of the Department of Physiology.

Eastern Medical Society.—At the annual meeting of the Eastern Medical Society, held on January 16th, the following officers were elected; president, Dr. Irving Busch; vice-president, Dr. Howard T. Behrman; treasurer, Dr. Henry C. Falk; secretary, Dr. Michael Weingarten; chairman, Board of Activities, Dr. Joseph F. Saphir; trustees, Dr. Nathan Ratnoff, chairman, Dr. Moses Keschner, and Dr. Michael C. C. Lilienfeld; governors, Dr. Julius Chasnoff, Dr. Louis Dlugasch, Dr. A. Allen Goldbloom, Dr. Israel Grushlaw, Dr. Isidore W. Held, Dr. Abraham Hymanson, Dr. Oscar L. Levin, Dr. Zelik Sharfin, Dr. Miron Silberstein, Dr. Abraham Strachstein, Dr. Arthur M. Tunick, and Dr. Isidor S. Tunick.

Urological Conference at Mt. Sinai Hospital.—A urological conference was held at Mt. Sinai Hospital, New York, on Wednesday afternoon, February 11th. Two interesting cases for diagnosis were presented by Dr. Leonard J. Druckerman and other cases were presented as follows: Resection of carcinoma of bladder with ureteral implantation, by Dr. Gordon D. Oppenheimer; Heminephrectomy and ureterectomy for double kidney, by Dr. Abraham Hyman; Two cases of infarction of kidney, by Dr. Robert Landsman; Tuberculous pyonephrosis, by Dr. H. Evans Leiter; Carcinoma of bladder following Hunner ulcer, by Dr. Abraham Hyman.

Section of Orthopedic Surgery.—At a meeting of the Section of Orthopedic Surgery of the New York Academy of Medicine, to be held Friday evening, February 20th, Dr. Nicholas S. Ransohoff will present a case of static progressive spondylolisthesis. Papers will be presented as follows: Double clothes-pin graft of the spine in spondylolisthesis and where laminar defects exist, by Dr. David M. Bosworth; Traumatic spondylolisthesis, a report of three unusual cases in adults, by Dr. Samuel Kleinberg and Dr. Michael S. Burman. The subject will be discussed by Dr. Mather Cleveland and a general discussion will follow.

Section of Obstetrics and Gynecology.—At a meeting of the Section of Obstetrics and Gynecology of the New York Academy of Medicine, to be held Tuesday evening, February 24th, the program will be presented by the Sloane Hospital for Women. The following papers will be presented: Local application of estrogens in treatment of pruritus vulvae, by Dr. Charles Lee Buston; Use of Miller-Abbot tube in obstetrics and gynecology, by Dr. W. E. Pollard; Anatomical change following radiation for carcinoma of the corpus uteri, by Dr. James A. Corscaden; Mechanisms for face and brow presentations, by Dr. D. Anthony D'Esopo. A general discussion will follow.

New York Pathological Society.—A meeting of the New York Pathological Society, in affiliation with the New York Academy of Medicine, will be held Thursday evening, February 26th. There will be a presentation of cases as follows: Syphilis of the aorta and coronaries, by Dr. George Strassman and Dr. Philip Goldstein; Squamous cell carcinoma of the bronchus and spindle cell sarcoma of the lung, Dr. Daniel A. Rock and Dr. John W. Hall. Papers will be read as follows: Liver lesions caused by excess ingestion of sulphur-containing amino acids, by Dr. Joseph Victor and Dr. David P. Earle, Jr.; Agnogenic myeloid metaplasia of the spleen, by Dr. Carl Reich and Dr. James Lisa. An executive session will follow. Dr. Jean Oliver is president and Dr. John M. Pearce is secretary of the society.

Civilian Defense Appointments.—President Roosevelt has appointed Dr. George Baehr, Chief Medical Officer of the Office of Civilian Defense, to be a member of the Health and Medical Committee of the Office of Defense Health and Welfare Services. Dr. Irvin Abell, Louisville, Kentucky, chairman of the Committee on Medical Preparedness of the American Medical Association, is chairman of the Health and Medical Committee and other members are the Surgeon General of the U. S. Army, Major General James C. Magee; the Surgeon General of the U. S. Navy, Rear Admiral Ross T. McIntire; the Surgeon General of the U. S. Public Health Service, Dr. Thomas Parran, and the chairman of the Division of Medical Sciences, National Research Council, Dr. Lewis W. Weed, Baltimore. The Office of Defense and Welfare Service is a part of the Office for Emergency Management. Paul V. McNutt is director.

Dr. Thompson Appointed Chief Inspecting Officer of Public Health Service.—Dr. Lewis R. Thompson, director of the National Institute of Health and assistant surgeon general in charge of scientific research, has been appointed chief inspecting officer of the United States Public Health Service, a new position established in the Office of the Surgeon General. In announcing Dr. Thompson's appointment, Surgeon General Thomas Parran stated that the personnel and activities of the Public Health Service have been greatly augmented during the past year to meet the demands of military and civilian defense. As a result, it is important to consolidate, under one head, the field activities of the district offices of the Public Health Service and of its liaison officers in the Army Corps areas. Dr. Rollo E. Dyer will succeed Dr. Thompson as assistant surgeon general in charge of the Division of Scientific Research and as director of the National Institute of Health.

SOUTHERN CALIFORNIA MEDICINE

JOHN WILLIAM SHUMAN, SR.
Los Angeles, Calif.

(*Continued from page 73*)

The minutes often show a start of something but no 'follow-through'. For example, a minute: "Doctor Blank was brought up on the carpet on certain charges" is the last note on the case, there being no further mention of it in subsequent minutes. Or a longer minute: "The governor has been petitioned on account of the homeopaths seeking to place one of their members at the head of an insane hospital".

Every now and then the minutes record an oddity:

July 9, 1896

To the Los Angeles County Medical Association
Ladies and Gentlemen:

Preferring to exercise full liberty of thought and actions concerning my own convictions as to the right and wrong principles; as to expedience in adoption of methods; desiring to put myself in a position to dispense the means of cure and relief to the greatest number of suffering humanity, useless indeed by any ethical restraint; believing the code of ethics of the American Medical Association adopted a half century ago, unsuited in some particulars to many conditions thrust upon the medical practitioner in this advanced age; and being convinced that the Golden Rule is the best substitute for all codes of ethics; I hereby tender my resignation from membership in the Los Angeles County Medical Association and announce my determination henceforth in my relations with the profession and with the public, to be bound only by the ethics of the Golden Rule.

Respectfully submitted,
(Signed) C. H. WHITMAN, M.D.

The ethics of the Los Angeles County Medical Association like those of the American Medical Association and all other regular medical societies are founded supposedly upon and work according to the Golden Rule. Whitman's request was granted but do not overlook the fact that he afterwards was president of the Los Angeles County Medical Association (1916), also the superintendent of the Los Angeles General Hospital at another time.

Not all questions propounded were left in the air. Time after time, early minutes mention medical advertising as the subject of discussion. Finally a motion was carried to postpone such discussion indefinitely. Here then at least there was a decision not to decide!

The committee on professional ethics suggested in January, 1891, the following changes in Article IV of the constitution and by-laws, "No homeopath, eclectic or other quack, nor any other irregular practitioner, nor anyone who shall advertise a specialty and practice general medicine, nor anyone who shall advertise former or presents ranks or positions in secular or religious press, shall be admitted or retained in this association". Five months later this amendment was adopted minus "homeopath, eclectic, or other quack".

At one of the meetings it had become known that the Los Angeles Woman's Friday Morning Club desired meeting rooms; so a motion made by Doctor Wills to lend those of the society, was passed. At a subsequent meeting a letter was read by the secretary from those ladies, saying, "Thanks but regret that the rooms are not adapted to our needs".

During one of the meetings (January 8, 1897) Doctor Praeger spoke: "The daily papers have published a story about the senior high school class visiting a German-English specialist's office to witness an x ray exhibition—which affords wonderful advertisement features". After some discussion it was thought best to let the matter drop, lest additional publicity be made for the "x ray specialist".

A protest went out from the society against the Homeopathic College affiliating with the State University (1897). However, the Board of Regents of the State University granted the petition of the homeopaths. Time mellows all things and although the homeopaths are fading into innocuous desuetude, their brief sojourn has been most helpful to regular medicine.

Early in their career, the osteopaths wanted to affiliate with the Los Angeles County Medical Association but their application was turned down (December 3, 1897) after being hotly discussed.

To take up in sequence some of the most interesting things that appeared in other minutes:

Doctor Hayes proposed as a member, a Doctor Gelsich who did not have his diploma with him; and Griffin proposed the name of Doctor Wallace of Santa Barbara as an honorary member. The Chair ruled both out of order.

February 7, 1871, the committee reported: "V. Gelsich has papers of recommendation signed by the physicians of San Francisco for position of Resident Physician at the California State Prison in '62; he was discharged as Surgeon from the Fourth California Voluntary Infantry in '65; he has a letter from General Drum regretting his departure from the army; also a paper granting him the contract for furnishing medical attendance and medicine to the Los Angeles County Hospital and Jail; and an affidavit by Maleo Brazzanovich of San Francisco, 1862, that a medical diploma belonging to Doctor Gelsich was burned up in his house in 1853." On motion the secretary was informed to instruct Gelsich, in writing, that the credential committee thought it best to take no further action at present, but advised that he apply to the college from which he graduated for a copy of his diploma or the Dean's certificate that one had been issued. However, Gelsich was apparently never able to comply because no record of his membership exists.

The secretary reported as unfinished business the resolution proposing Doctor Wallace of Santa Barbara as an honorary member, stating that the constitution was amended to take care of this matter and he was elected at the March 7th meeting, 1871.

The secretary submitted the following bills which were approved and ordered to be paid:

Los Angeles News for advertising	$2.00
Los Angeles Star for advertising	5.00
Prodench & Riley for book, stationery and stamps	1.00

That "book" for which a part of the one dollar was paid was the first minute book of the new society, a leather book now in the office of the secretary.

Doctors did occasionally advertise, as witness:

In the Early Days of Los Angeles

From the Old Files of the Express, August 19, 1876

Doctor Wise now visits his patients in a beautiful new buggy, manufactured by Page and Gravel. Doctor E. A. Preuss has started for the East and will probably take in Europe before he returns. Bon voyage!

Doctor W. B. Dunne desires us to say that he will vaccinate gratis all who come to his office on Monday between 10 a.m. and 12 noon and 2 and 5 p.m.

April 4, 1876, there was malaria in Southern California. "A general discussion of the society was had upon the peculiarities of malarial fevers manifested in this locality. Also upon the antimalarial virtues of the eucalyptus tree."

The State of California having provided for a definite mode of procedure regarding dissection material, the minutes of the association, at its meeting of January 2, 1887: "Upon motion the secretary was directed to give to Doctor Barton a certificate that he is a person properly entitled to have in his possession a dead body for purpose of dissection, as specified by the California State law upon that subject."

At the meeting of February 6, 1887, in a discussion of irregular practitioners, it was moved and seconded, "That the members of this association, as individuals, report to the secretary the names of irregular practitioners, known by them to be practicing medicine and surgery within the county limits contrary to law, and that he is hereby instructed to report the same in his official capacity to the District Attorney and urge the prosecution of the same."

At the same meeting a motion for a "Committee on Ethics" the president to be its chairman, was passed. Its duty was to present at the next meeting measures for the prevention of irregularities in the conduct of members; who publish in the daily papers, cards calling attention to specialties; the sending of matter through the mails with reference to removals; the publication of articles in the press signed by the title of M.D.; the placing of signs in places other than the office or residence of the practitioner; and such other matters as require attention. The committee as appointed consisted of the following gentlemen: The president, Widney, Orme, McKee and Barton.

At a meeting in May, 1878, Joe Kurtz moved "That a committee be appointed to prepare a blacklist to contain the names of practitioners with whom our members will not consult." Doctors Kurtz, McGuire and Widney were appointed. Later McGuire presented the following resolution which was unanimously carried:

"We, the members of the Los Angeles County Medical Association, urgently request as a special favor that the editors of the daily and weekly papers of this city do not permit any of our names to appear in connection with any accident or surgical operation or private professional matter in which we may be engaged. Such publication being in direct violation of the code of medical ethics adopted by the American Medical Association and of the by-laws of our local society."

At the meeting, March 7, 1879, a revised fee bill was established:

Revised Fee Bill

Day visit	$ 2.50 to $ 5.00
Night visit	5.00

Consultations

First consultation	$ 5.00 to $ 10.00
Subsequent consultations	3.00 to 5.00
Attending physicians the same.	
Advice at office	2.00 to 10.00
Visits in the country, one dollar for each additional mile over two.	
Opinion involving question of law	50.00 to 100.00
Postmorten examination	25.00 to 50.00
(If for legal investigation)	100.00 to 200.00
Vaccination	1.00
Gonorrhea or syphilis (in advance)	25.00 to 50.00
Ordinary obstetrical cases	25.00 to 50.00
Turning of forceps (additional)	25.00 to 50.00
Embryotomy	100.00 to 300.00
Attendance after ninth day, ordinary rates per visit. Tedious labors additional.	

Surgical

Capital operations	
Amputations of leg or arm	
Ligation of artery when large	
Stone	
Removal of breast or large tumor	
Cataract	
Strangulated hernia	
Vesicovaginal fistula	
Cleft palate	$100.00 to $500.00

Operations of Secondary Importance

Fistula in ano	
Harelip	
Hydrocele	
Tapping of ovarian cysts	
Dislocations	
Fractures of large bones	
Tracheotomy	
Small tumors	
Catheterism in cases of obstruction	
Ligation of small arteries	$ 25.00 to $100.00
Minor operations	5.00 to 25.00
After an operation, visits at usual rates.	

"The foregoing is intended as a general guide. Physicians and surgeons shall have liberty to receive less than the regular fee when the poverty of the patient rends it impossible for him to pay full rates, but in such cases he must be told what the regular fee is and that the reduction is made on account of his limited means.

"Also, with patients of wealth it is considered only proper and just that the physician or surgeon shall not be restricted by the foregoing table, but shall receive such increased compensation for his services as the greater means of the patient may render proper.

(*Signed*) J. P. WIDNEY, M.D.,
WALTER LINDLEY, M.D."

The reader may compare the foregoing with that fee bill of 1871 (*vide sub* under "Society Reports").

The minutes of June 6, 1879, state that Doctor Kurtz read an instructive paper entitled, "Why Do We Use Spectacles?" which was followed by a goodly discussion and a vote of thanks to the writer. He was a family physician.

On March 4, 1881, these items: "The committee on irregular practitioners reported that a complaint had been filed with the district attorney against a socalled

doctor, C. S. Hastings, and that his case would come before the next grand jury. Doctor Kurtz gave notice that he would file a complaint against B. F. Bragg, a quack". Nothing further in the minutes.

At the annual meeting in 1884, L. K. Riley asked, "Is it not advisable for the society to take the necessary steps as soon as possible, to secure some property to be used by the society as a place to hold its meetings, and for its members to make dissections and scientific experiments?" On motion, a committee composed of Riley, Orme and Willis was appointed to ascertain the feeling of the profession on the subject.

A month later Kurtz, Orme and Lindley were elected delegates to the meeting of the medical society of the state to be held in San Francisco. They were instructed "to invite and request the society to hold the next annual meeting in Los Angeles" . . . "Invitation accepted and request granted."

During the August meeting that year, the following was written:

"I hereby give notice that at the next regular meeting of the association I shall propose the following amendment to the Constitution: After the list of officers, add the following: and a librarian, who shall also be pathological curator."

F. A. Seymour, M.D.

The pathologist's sun was rising!

"The president opened a discussion which was participated in by the physicians, relating to the unsanitary condition of our city and the probability of yellow fever being introduced by persons coming from infected districts. On motion, Lathrop, Bicknell and Lasher were appointed to confer with and make suggestions to the board of health concerning the best plan to improve the sanitary condition and also to prevent the introduction of yellow fever into the city of Los Angeles."

Concerning the meeting, there is the following:

"The Board of Trade of the city of Los Angeles requested the Los Angeles County Medical Association to prepare for publication by the said board, a paper expressing the views of the association on the climate of Southern California as a health resort. On motion, Widney, Orme and Lasher were appointed a committee for that purpose. Chairman Widney read the report of the committee, which was adopted and the secretary was instructed to notify the Board of Trade that the desired report was ready for publication."

At the same meeting F. A. Seymour read a paper entitled "Rules Governing the Los Angeles County Medical Association Library". On motion, Seymour, Lathrop and Lasher were appointed a committee to report on these rules at the next meeting of the association. Doctor Lindley was appointed a Committee on Room for Library.

A year later (November 6, 1885) this was read at a meeting: "Extracts from *Petaluma Courier,* October 7, 1885, in regard to malpractice suit of Winters vs. Graves, were read by the secretary. A letter from Doctor Kerr, secretary of the San Francisco County Medical Society, asking for contributions to help set aside the rascally verdict, was read; also a circular from Doctor Graves of Petaluma. Graves was mulcted for $8,000 damages—the verdict in the case. Remarks on the case, as to advisability of appeal to the profession of the State, were made."

At the annual meeting (January, 1886) there were no written communications except that of the president's annual address. Congratulations seem to have been in order on the thorough work of the committees. The question was asked, "Would papers be more creditable if issued as transactions of Medical Society?" Enforcement of medical laws was recommended. Communications with the homeopathic examiner's board on enforcement of discipline in their ranks was sought. Some of the medical events of the year were the establishment of the College of Medicine, University of Southern California, on Aliso Street, and the founding of the *Southern California Practitioner.*

Quackery flourished then, as ever, for witness the chronicles of a special meeting of the society (August 2, 1886) when the following action was taken:

"Finally, upon motion, a committee of three was appointed to confer with the district attorney and ascertain the means and methods necessary to rid the community of non-licensed practitioners; the committee made up of Hagan, Orme and Seymour, was requested to report at the next regular meeting of the society."

"Need of a medical library" was still a slogan at the meeting of December 19, 1890, because: "The library committee reported that they had secured two dozen chairs, in addition to those previously reported on, also a chair for the president, a new desk, and a seal for the society's use. The committee also reported that they had written a circular letter to publishers of all of the known journals of medicine published in the United States, numbering something over two hundred, requesting them to send their respective journals (gratuitously) to the library of the Los Angeles County Medical Association. The present administration assures us that that library is soon to be constructed."

At that same meeting it was stated that the secretary called the attention of the members to the faulty condition of the constitution and by-laws, and moved that a committee of three be appointed by the chair to revise the same. After some discussion the motion was carried.

The minutes of February 5, 1892, aver that a letter was read from Mr. C. D. Willard, secretary of the Chamber of Commerce, containing the following resolution passed at the meeting of the board of directors of the Chamber of Commerce on January 29 of the same year.

"Resolved, that the president of the Los Angeles County Medical Association be requested to furnish the leading medical journals of the United States, the meteorological reports as furnished by the United States Weather Bureau of Los Angeles, and also the mortuary report of the city, with such comments as in his judgment are necessary to enable the citizens of other places to correctly compare the healthfulness of this place with their own."

This was discussed at some length by Davisson, Hitchcock, Orme, Bert, Ellis, Miller and Fitzgerald, after which Ellis presented a motion: "It is the sense of this association that it is unexpedient and unwise to send the mortuary and meteorological reports to eastern journals. Because they are incomplete and inaccurate and hence liable to harm rather than benefit Los Angeles." It was carried.

At the September meeting M. L. Moore offered the

following: "To His Honor, the Mayor, and the Honorable Members of the City Council:

WHEREAS, The presence of cholera is at our shores, and we cannot tell how soon it will be in our midst, and

WHEREAS, filthiness is a predisposing cause and cleaning our city is necessary,

Therefore we, as representing the medical profession of this city, do request that as many inspectors be granted at once as the Board of Health may deem advisable." This resolution was adopted.

Skipping until the May meeting, 1896, Dr. S. A. Knopf read a paper entitled "Should We Treat Consumption as a Contagious or as a Communicable Disease?" After which, charges were filed against a member for unprofessional conduct. The action of the society was interesting, as shown by the following excerpts:

The Board of Censors wishing to make a report, Doctor Hitchcock moved, seconded by Doctor Dodge, that an executive session be declared. Carried. The Board of Censors then reported having received the following communication: "We hereby formally charge Doctor Sherwood Dunn, a member of the Los Angeles County Medical Association, with having violated Article IV of the Constitution of this Society, in that he operated on two patients for the German-English specialist (the same one who had an x ray show) and that said operations have been exploited in the advertisement of said German-English specialist in the *Los Angeles Sunday Times* of April 26." It was recommended that the association hear the explanation of the accused.

Doctor Dunn explained. A free discussion followed. The Board of Censors recommended "that the charge be not sustained". Adopted by a vote of seventeen to ten.

Dr. George L. Cole moved that it was the sense of the association that Dunn had only acted indiscreetly in accepting patients from the German-English specialist, also in allowing said specialist to be present.

Doctor Hitchcock made this amendment, "Dunn should not be such a --- --- and do so any more." Knopf moved, "Hitchcock should not swear again in the meeting of the association." All amendments were accepted and the motion passed.

Report on Illegal Practitioners

It was then moved and seconded and carried that the association go again into executive session, after which the committee for prosecution of illegal practitioners made its report verbally and presented a letter from its attorney, showing arrests, convictions and fines to date. The letter:

Los Angeles, California,
December 21, 1900.

To Messrs. Wills, Johnson and Dodge:

Dear Sirs:

I hereby present a report of investigations and prosecutions against illegal practitioners up to date. The following cases have been pressed to a final determination and with the following results:

In the case of People vs Igleses prosecuted in the Police Court of Los Angeles City upon two charges, the defendant was found guilty, and fined one hundred dollars on each count. The same individual was arrested for practicing illegally in Long Beach and upon examination was held to appear before Superior Court, pled guilty and was fined fifty dollars.

Benjamin Perez was prosecuted in the Police Court, found guilty and fined one hundred dollars.

Minnie Wells was fined one hundred dollars.

There is now pending in the Police Court in some stage or other, six cases, and I have complaint ready in five others to file within the next day or two. In addition to these, we have some fifteen or twenty illegal practitioners which we believe it is almost impossible to reach under the present statutes of our medical law, but with some amendments to the same there would be no difficulty in stopping their practice.

Very respectfully yours,

W. M. BROWN

That was one of the most interesting meetings recorded.

Federation of Medical Societies

The reorganization of the American Medical Association and the State and County units, as noted previously, appear in the minutes of January 17, 1902. "Mr. Charles Marshall, organizer for the American Medical Association, addressed the society. He told of the organization of the American Medical Association at St. Paul last year and of the wish that all County medical societies and associations would ally themselves with the State societies and through them with the American Medical Association. He stated that many Los Angeles physicians were joining the American Medical Association."

At a succeeding meeting (February 7, 1902) it was stated that Dr. Lemoyne Wills read a fine paper on the subject, "Federation of Medical Societies." Dr. J. H. Davisson, also made an address on "The Federation of Medical Societies."

Davisson said that while favoring the organization plan recently adopted by the American Medical Association, it was not a new idea, having been the aim of the first years of the history of the American Medical Association. He brought up several points in favor of the County and State medical societies. One point to be adjusted was the matter of dues, which at that time he thought to be excessive, especially to men of slender means. He was heartily in favor of organization and affiliation with the State association on an equable basis even regarding the dues.

Hitchcock was in favor of organization and a closer affiliation with the State medical association, that the medical profession should be more of a unit on matters of legislation so as to secure equal rights for all; that a plan should be had of reorganization which would unite the County medical association with the State medical association; and that all doctors should be members of the State medical association. He thought the only way to suppress quackery and inefficiency was to organize for mutual protection and advantage. As to the question of dues, he said it was an important one which could be placed on a more economical basis. He concluded that no body of men does such a great amount of good work for as small pay as the medical profession. . . . This was all in the days before state medicine.

Further discussion favorable to the affiliation was made by Bullard, Bicknell, Dodge, Wills, Brainard, Stivers and E. R. Smith. It was then moved by W. L. Wills, seconded by Dodge, Bicknell, Smith and a number of others, that a committee be appointed to confer with a committee of the State medical association on the subject, the matter of dues and other details to be left with the committee. Motion carried and Wills, Bicknell, Dodge, Hitchcock, Cole, Smith and Stivers appointed.

(*To be continued*)

Book Reviews

Dietetics

Dietetics for the Clinician. By the late MILTON ARLANDEN BRIDGES, B.S., M.D., F.A.C.P., formerly Director of Medicine, Detention, Rikers Island and West Side Hospitals, New York; Assistant Professor of Clinical Medicine and Lecturer in Therapeutics and Nutrition, New York Post Graduate Medical School, etc. Fourth Edition, Thoroughly Revised. Illustrated. With complete food tables. Philadelphia: Lea and Febiger, 1941. Price, $10.00.

The present edition has been revised by Miss Mattice, the chemist of the New York Post Graduate Hospital. In carrying out Dr. Bridges' plans this posthumous issue is a valuable source of practical information on dietary principles and practice in clinical medicine. A conspicuous change is the substitution of typical diets for the sample menus heretofore used. They are all based on the standard and normal from which they are made to deviate as little as possible. By this means individual diets can be readily devised to meet the special conditions imposed by disease variance, economic status, seasonal availability and the like. The vitamin section has also undergone extensive revision. The chapter on the dietary management in diseases of children has been considerably shortened with total elimination of the chapter on normal infant feeding. Other departments of nutrition have been written mostly by members of the staff of the Post Graduate Hospital. The most helpful portion of the book is the table of nutritive value of foods expressed in various units at the end of the book for clinical application.

Shock

Shock. Blood Studies as a Guide to Therapy. By JOHN SCUDDER, M.D., Sc.D., F.A.C.S. From the Surgical Pathology Laboratory of the College of Physicians and Surgeons, Columbia University, and Department of Surgery, the Presbyterian Hospital, New York City. With fifty-five illustrations and five plates, three of which are in color. Philadelphia, Montreal and London: J. B. Lippincott Company, 1940. Pp. 315. Price, $5.50.

The work of R. L. Zwemer in revealing the consistent electrolyte imbalance (chiefly potassium excess) that underlies shock, hemorrhage, ileus and certain dehydrating diseases, is of the utmost importance, and would seem to give the long-sought clue to that ubiquitous "histamine-like substance" producing hemoconcentration, hypotension, and death in these conditions. Zwemer himself is too careful a scientist to say so point-blank, but the evidence accumulates that the root of much evil is K.

Blood studies are crucially important as a guide to therapy of shock; the hematocrit, specific gravity, plasma protein and blood potassium are altered significantly long before clinical shock develops, and their mode of disturbance will dictate whether plasma, red cells, saline, and/or adrenal cortical hormone are required in therapy. The especial importance of cortical hormone is the result of its control over electrolyte balance, and, in particular, potassium elimination via the kidney.

So much you know from the pre-Scudder literature. Dr. Scudder has evidently learned a little from Dr. Zwemer, and has blown up this little into some three hundred pages, many of which are blank on one or both sides, followed by an eight-page "laboratory manual" showing with some difficulty and little clarity just how some of the tests are executed. These last eight pages may tentatively be considered worth reading.

Scudder's book is a fabulously haphazard accumulation of unselected writings dating since 1492 A.D., so to speak "assembled" and interspersed with the author's own random experiments with animals and victims of the Hindenburg disaster. It is devoid of coherent thought or any effort to draw a useful conclusion from the welter of abstruse facts excepting that it all "illustrates the necessity of doing these determinations". If the various blood studies have meant anything in Dr. Scudder's experience, either he has not grasped just what they have meant, or he is unwilling to offer any explanations; at all events, he simply neglects to mention *how* blood studies may serve as a guide to therapy.

Instead, a number of isolated cases are shown (all the data having been copied straight off the chart) to illustrate the purported thesis; and every imaginable finding (whether Scudder or the reader understands it or not) is mentioned somewhere—like "this selective permeability in certain large plant cells is determined by diffusion constants and concentration gradients, the latter depending upon partitio coefficients".

We sorely need a new work on shock, giving full consideration to the important findings of the Zwemer school which few have really grasped thus far, but making those findings intelligible and useful in war and clinical surgery. This isn't it.

Half Truths

Doctors Don't Believe It—Why Should You? By AUGUST A. THOMEN, M.D. With introductions by Logan Clendening, M.D., and The Right Honorable LORD HORDER, physician in ordinary to the King of England. New York: Simon and Schuster, 1941. Price, $2.50.

The truth is not as simple as appears on the surface. Only half-truths are simple. Whole truth is the most complicated thing in the universe. Unfortunately, half-truths cling to medicine with peculiar tenacity. This book is one of the first of its kind to dispel half truths in various branches of medicine. The enormous growth of medical science has displaced misconception and misinformation to such an extent that the author has attempted a worthy task to correct common errors. It becomes a valuable source book for those interested in the best available knowledge on popular aspects of everyday medicine.

First Aid

First Aid in Emergencies. By ELDRIDGE L. ELIASON, A.B., M.D., Sc.D., F.A.C.S., Professor of Surgery, University of Pennsylvania School of Medicine. Tenth edition, completely revised and reset. With 126 illustrations. Philadelphia, Montreal, and London: J. B. Lippincott Company, 1941. Pp. 260. Price, $1.75.

This work is opportune as an aid in war work, to meet the emergencies which may arise in everyday life. It is designed for firemen, policemen, wardens, lifeguards, sailors, boy scouts, factory workers and the like. Every effort has been made to avoid the use of technical terms and yet give a clear picture of what to do in any emergency. The illustrations show step by step procedures in accordance with accepted modern practices. The arrangement of the book makes it very useful for studying principles of first aid now given to wardens and other volunteer workers mobilized for defense work.

Medical Milestones

Rise of British Medical Education

Practically nothing is known of the practice of medicine in the British Isles until after the reconstruction of England following the conquest of the island by the Normans under William the Conqueror (1066). At this time of reconstruction the ruling sovereign was Henry I, second king after William, who, it is recorded, built a hospital at Oxford, already a meeting place for scholars but not yet called a "universitas" (community of students).

Earlier, when England was still Anglo-Saxon, there were "leeches" who "cured" their patients by charms, spells, incantations and mysterious herbs from which potions and salves were made. Many of these old remedies linger in British herbal shops and are still used by people in country districts for as much virtue as they possess. But in Saxon times no one seems to have devoted himself entirely to the profession of medicine. Those who became "leeches" or practised "cures" were usually persons considered to have special God-given powers through inheritance or "divine right", as, for example, "the King's touch", or the seventh son of a seventh son.

But after the Norman conquest a number of physicians educated in the already established continental medical schools of Salerno and Montpellier came to dwell in England, and young Britishers interested in medicine were sent abroad to study and acquired prestige. Especially did the court physician become a dignitary often of considerable renown. The name of Henry I's doctor, Grimbaldus, is found in several of the state documents of the former's reign. But not yet was medicine considered of sufficient importance to be officially included among the liberal arts, although there are rather obscure references to what must have been discussions of medical subjects at an early date.

One drawback to the practice of medicine at this time lay in the fact that for failure to cure the patient the doctor or surgeon was often fined; if the patient died under his care, he might be put to death. These frequently practised, rather drastic measures resulted in the recommendation in ancient textbooks of medicine that the physician should accept only curable cases. When death of the patient seemed imminent, or a surgical operation looked like a failure, as many other doctors as possible were hurriedly called in for consultation so that the responsibility could not be laid upon any one practitioner. Another consequence of these customs was that the more courageous surgeons or those interested in new methods usually sought safer lives and careers by becoming wanderers over the face of the land.

Early Instruction in Medicine

With such penalties attached to practise of the healing art it was far from strange that it was not held in the best repute. In the statutes of Oxford, founded in 1264 by Walter de Merton, there is a prohibition forbidding reception of medical students, indicating that there were at that time young men who nevertheless sought such instruction. This prohibition was not long in effect, for within the century Merton College, Oxford, was occupying a prominent place in the teaching of medicine, and Cambridge, an offshoot of Oxford, was also offering courses. And this was happening in spite of the fact that physicians were advising their young colleagues to study with their local doctors or, if they must seek courses, to take them on the continent. The universities countered these efforts on the part of the mercenary-minded members of the medical profession by petitioning Parliament to restrict by law the right to practise medicine and surgery to graduates from the medical faculties of British universities, or to those whose doctorate was recognized by them. In 1422 Parliament passed such a law.

At first medical instruction in the universities was purely theoretical and attempts were made to treat the subject with the syllogistic methods then in vogue. The course leading to a degree was a long one—seven years—and included two courses in anatomy if the student planned to become a physician, and practical dissection by himself if he wished to qualify for a surgeon. The two consecutive degrees of M.B. or M.D. gave him perpetual right to practise anywhere in England provided he did not charge too much for his services nor delay cure for gain.

The earliest existing diploma granted in England is dated August 8th, 1497. The recipient was one Roberd Anson, who, the diploma states, "was publickly examined in divers things concerning the practice, operative and directive, in the said craft of surgery . . . and found able and discreet to occupy and use the practice of surgery as well as about new wounds, as cancers, fistulas, ulcerations and many other diseases and divers." The above-mentioned Roberd, according to statements in the diploma, had already qualified as a barber surgeon, and wished to become a consulting surgeon, so he presented himself for what was called "The Great Diploma", awarded to candidates who successfully passed a higher examination held in public by a specially appointed examiner. This was the beginning of a procedure which resulted in 1843 in the establishment of a superior order known as "Fellows of the Royal College of Surgeons of England", the test of membership in which was the passing of difficult examinations in anatomy, physiology and surgery.

The United Barbers and Surgeons

The United Company of Barbers and Surgeons was founded in London in 1540. After the formation of this organization, "it is easy to trace the course of a medical student," writes Sir D'Arcy Power in *Medicine in the British Isles*. "The first step in his career was to find some member of the Company who would take him as an apprentice. He then went with his master to the Barber Surgeons Hall . . . and appeared before the Court or Governing Body of the Company to show that he was not deformed or suffering from any chronic disease, for it was a tradition handed down from the earliest days of the Guilds that apprentices should be healthy and free from blemish or from spot. The opportunity was taken to ascertain whether he could read, write and had some slight knowledge of Latin. . . . The boy was about fourteen years old, and, if he passed the Court and his indentures were registered, his period of servitude began. It usually lasted for seven years, so that he might be made free of the Company and thus able to practise on his

own account by the time he was twenty-one. It might however be prolonged to eight or even nine years. The sum of money paid to the master was at first just sufficient to cover the cost of clothing and feeding the boy in return for his services.... Each master was permitted to take three or four apprentices according to his position in the company, and if he died the apprentices were 'turned over' to another master or to the widow for the remainder of the term for which they were bound.... The apprentices were taught anatomy and surgery by the Company the teaching of anatomy being regularized by the clause in the charter which enacted that they might take annually at their discretion four persons put to death for felony.... The apprentices, therefore were better off at this time than the medical students two hundred years later when it was necessary to resurrect bodies needed for dissection. The teaching was done by a lecturer called "the reader" and by four "masters" or "stewards of anatomy".... These anatomical demonstrations took place four times a year and were open to the public. The whole business ended with a feast, and it was the duty of the two junior masters of anatomy to see that the tables were properly furnished.... Surgery was taught by lectures held on a Tuesday in every week throughout the year. Attendance upon the lectures was compulsory on every member of the Company, from the master to the youngest apprentice; absence was punished by a fine.... Such pathology as existed was sometimes taught by the lecturer on anatomy and sometimes as a part of surgery. ... It is a little remarkable that no attempt was made to teach clinically. There is indeed some evidence to show that the introduction of patients at lectures was definitely forbidden in London, and not until 1602 was a clinical examination required in Scotland."

Hospital Teaching and Medical Schools

The above system was in vogue until about 1660, when apprentices were permitted to visit and work in hospitals. Thus, in spite of some complaints on the part of the Governors of the hospitals that their patients should not be left to the mercies of these "cubs", as they were called, the custom grew in vogue, and teaching through clinical observation was born. The system remained until about 1730, when the profession as a whole began to be conscious of insufficient education, so the system of private medical schools was inaugurated, and the teaching of medicine became gradually the well organized, scientific procedure which it is today.

Medicoliterary Notes

Dr. Gregory Zilboorg's new book, *A History of Medical Psychology*, published by W. W. Norton, is a valuable contribution to psychiatry. The volume traces this history through the early periods of Greek and Roman contributions to modern medical psychology, which were, as is well known, scant and for the most part aphoristic, down through the ages to the nineteenth century, when modern psychiatry began with Pinel's work in the Paris "asylums" and his first accurately recorded case histories of mental patients. The story of present day medical psychology and its importance to civilization and culture makes a fitting climax to the volume.

* * *

A recent novel about hospitals, doctors and nurses, very readable and for the most part true to life, is Kenneth Horan's *Night Bell*. The hospital atmosphere, a bit overdone on the bright side, and the very interesting character studies of staff members make the book realistic as well as entertaining, in spite of a rather weak and unconvincing climax.

* * *

Jews in a Gentile World, by Isacque Graeber, Steuart H. Britt, and others, represents the first attempt to utilize the findings of the various social sciences with respect to the practical issues that face both Jew and non-Jew. In this recent publication of the Macmillan Company, experts from the fields of sociology, anthropology, psychology, political science, economics, history and philosophy examine the problem of anti-Semitism.

* * *

Another publication of Macmillan of a less serious nature is Dennis Wheatley's novel, *The Scarlet Impostor*, which deals with the exploits of a daring Britisher who becomes involved in the attempt to bomb the Munich beer hall where *der Fuehrer* is speaking. The author's theory is that the attempt was engineered by a group of generals. Strangely enough, recent press rumors hint that Hitler's generals are really plotting his removal!

* * *

Practitioners of medicine who are interested in the related arts and sciences will find worthwhile reading in *Torch and Crucible* by Sidney J. French. A subtitle, "The Life and Death of Antoine Lavoisier", indicates the subject of this interesting biography of the "father of modern chemistry". The author is a professor at Cornell University, and the book is a publication of the Princeton University Press.

* * *

Lives and Dollars is the title of J. D. Ratcliff's popular book on what agricultural chemists have been able to do in salvaging by-products of the farm. The author describes the conversion of the once useless cottonseed oil into soap and various forms of shortening for cooking. He tells us how certain plastics are made from the waste from sugar mills, and how cooking gas has been generated from farm residue. The book is divided into two main parts: Part I describes what is being done to save and prolong human lives, not only through proper expenditure of dollars, but also through the usually unrewarded scientific labors devoted to medical progress; Part II discusses various topics related to physics and agricultural chemistry. Dodd, Mead is the publisher.

* * *

"The old order changeth, and as yet we have not got the new order straight." So writes Dr. Miles Atkinson in the introduction to his new book, *Behind the Mask of Medicine*, a recent publication of Charles Scribner's Sons. Why has society been so slow in taking advantage to the fullest extent of the extraordinary discoveries of the last century? asks Dr. Atkinson, and answers his own question in telling us why we have been so backward, spiritually, mentally and practically, in taking advantage of our medical blessings.

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WEDNESDAY, FEBRUARY 18, 1942

Medicolegal Notes

Actions for Malpractice in City Hospitals—Time Limitations

Section 50-d of the New York Municipal Law provides that every municipal corporation shall be liable and shall assume the liability, to the extent that it shall save him harmless, of any physician or dentist rendering medical services or dental services of any kind gratuitously to a person in a public institution maintained by the municipal corporation for damages for malpractice. The section concludes:

"No action shall be maintained under this section against such municipal corporation, physician or dentist unless the applicable provisions of law pertaining to the commencement of action and the filing of notice of intention to commence action against such municipal corporation shall be strictly complied with."

Nothing in this section, it is held by the New York Supreme Court, Special Term, Kings County, indicates that "the physician or dentist may not be sued; on the contrary, it definitely appears that the physician or dentist may be sued but that such right to sue must be governed by statutes of limitation similar to those affecting the municipality itself. (Lee Derlicka vs. Leo, 256 App. Div. 215, 9 N. Y. S. 2d 463, which was reversed by the Court of Appeals, 281 N. Y. 266, 22 N. E. 2d 367, on other grounds.)"

It was accordingly held that an action against the city of New York and its physician to recover for alleged negligent medical treatment, brought more than six months after the cause of action accrued but within one year thereof was timely, where the plaintiff complied, as to time of filing of notice of intention to sue and time of commencement of action, with section 394 a—1.0. of the New York Administrative Code. That section provides: "c. An action against the city . . . for damages for personal injuries, resulting from the negligence of the city . . . or of any agency of the city . . . shall be commenced within one year after the cause of action therefor shall have accrued, provided that a notice of intention to commence such action . . . shall have been served . . . within six months after such cause of action shall have accrued . . ." Grimaldi vs. City of New York, 30 N. Y. S. 2d 366.

Hospital Held Not To "Practice Medicine"

The complaint in a patient's action against a hospital and certain of its doctors, attendants and nurses for damages for personal injuries, alleged negligence, recklessness and want of ordinary care in failing, for six weeks, while the patient was in the hospital for a kidney operation, to discover that the patient's second floater rib on the left side had been broken, and in failing to render any care or treatment for the broken rib. Judgment was rendered for the defendants after the trial court had sustained a general and special demurrer to an amended complaint filed on behalf of the hospital without leave to amend. This was reversed on the ground that the complaint was sufficient against a general demurrer, and it was left within the discretion of the trial court to require the clarification of uncertainties or ambiguities, or to insist that alternative allegations be restated as direct allegations in separate counts.

The hospital's theory was that the complaint was fatally uncertain because it failed to specify the manner in which the plaintiff's rib was broken or the acts of the hospital which were responsible for the injury.

The court noticed another contention of the hospital, that allegations concerning negligent failure to discover or willful failure to render care and treatment cannot state a cause of action for the reason that the discovery and treatment would constitute the practice of medicine by a corporation in violation of the statute. To this argument the court said: "The allegations of the complaint cannot be construed as setting forth an agreement whereby the hospital, as a corporation, undertook for a fee to furnish medical diagnosis and treatment. The complaint charges only what is common practice, that the hospital agreed to care for the patient in the usual manner, that is, to furnish him with accommodations and to maintain such attendants, including nurses and interns, as would assure him proper care and attention before, during and after the operation. Under such circumstances, it cannot be said that the hospital is practicing medicine in violation of law."